

An exploration of conditions enabling and constraining
the infusion of service-learning into the curriculum at a
South African research led university

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Abstract

Drawing on critical realist philosophy as a meta-theoretical framework, this study explores the conditions that enable and constrain the infusion of service-learning in university curricula. In this study, four discipline-based cases are analysed within the context of an over-arching case of one South African university. The study reports on case study research into four disciplines, broadly representing the disciplinary array offered at Rhodes University, a small traditional research-intensive university in South Africa – four cases are thus embedded within a larger over-arching case.

Margret Archer's analytical dualism is used as an analytical lens for the inquiry. It offers tools for examining the conditions for the emergence of service learning and the form it takes in each case. Archer's framework requires the artificial separation of structural, cultural and agential mechanisms for analytical purposes in order to establish the dominant factors impacting on the infusion of service-learning in curricula. An analysis of the interplay between structure, culture and agency uncovers insights into the conditions that enable or constrain the adoption of service learning as a pedagogic tool in specific disciplines.

Curriculum decision-making is a central consideration in this study. Basil Bernstein's theory of cultural transmission provides an external language of description to theorise the pedagogic choices made in specific contexts. This body of theory provides analytical tools for generating nuanced explanations of the significance of knowledge and curriculum structures as enabling and constraining mechanisms when pedagogic decisions are made.

The study shows that the nature of the discipline has a significant influence on the emergence of service-learning and the form it takes in each context. Key agents draw on available structural and cultural mechanisms to either maintain the status quo or they exercise their personal properties and powers to mitigate existing conditions.

The first case examines the emergence of service-learning in a 'hard pure' discipline where structural and cultural conditions constrain the emergence of innovative pedagogic tools. In this case a key agent draws on a confluence of personal, structural and cultural emergent properties to initiate a service-learning course at the honours level. Factors that make service-learning possible in this case include the key agent's seniority within the institution, his status as a prolific researcher, the possibilities for application of disciplinary knowledge, and a strong institutional discourse of service to society (*RU in Society*) and an institutional and departmental discourse privileging academic freedom.

In the second case the conditions in the ‘hard applied’ discipline are largely enabling, however the emergence of service-learning is facilitated by the interplay of the following agential, structural and cultural emergent properties: corporate agency taking advantage of the outward focus of the discipline (a region in Bernsteinian terms) and drawing on what is termed the *RU in Society* discourse.

The third case represents a ‘soft pure’ discipline, where service-learning does not emerge within the formal curriculum, but in a largely marginalised departmental outreach programme. This discipline is inward facing and although its knowledge base draws on challenges and phenomena in society, it remains at an esoteric level accessible mainly to the discipline community. Agents in this department draw on the insular structure of the discipline, in conjunction with the strong *Academic Freedom* discourse to develop a form of service-learning that furthers disciplinary aims, albeit within the context of limited engagement beyond the boundaries of the discipline and the institution.

In the case of the ‘soft applied’ discipline the structural and cultural conditions are largely enabling. However the emergence of service-learning in this discipline relies on the advocacy of a powerful social agent in the department with an interest in socially equitable practice; she draws on the *RU in Society* discourse to promote direct engagement with communities beyond the university boundaries.

The study is set in a research-intensive university and it is perhaps not surprising that the service-learning courses in three of the four cases are framed by research projects. This suggests that in the context of this kind of institution it may be imperative to draw on research activities as the basis of infusing service-learning in the curriculum. The findings of this study challenge the implicit assumption in policy documents that it is possible to institute service-learning in all disciplines.

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Chapter One: Introduction

1.1 Introduction

Universities are widely cited as engaging with three ‘core functions’ – research, teaching and learning, and community engagement. This study focuses on what is often termed the ‘third pillar’ of academic life, community engagement, nomenclature which signals the perceived relative importance of this area of endeavor in relation to the other two functions of research and teaching and learning. More specifically, the study investigates claims that service-learning, one of a range of activities along a so called community engagement ‘continuum’, has the potential to function as a pedagogic tool which will allow universities to forge the new relationships with society often cited as necessary in policy documents as well as popular discourse.

Much has been written in recent times about the role of the university in contemporary society (see, for example, Barnett, 2000a, 2005; Castells, 2001). A great deal of this analysis has focused on the role universities are increasingly being called upon to play in contributing to economic development in a globalised world order – economic development which generally contributes to the private, rather than the public, good. Calhoun (2006:11-12) outlines the difference between these different kinds of contributions in the following way:

[T]here is a crucial difference between outputs that are directly public (like an informed citizenry, or better public health) and those outputs that will be appropriated as private goods (like credentials leading to high-paying jobs, or marketable technologies).

In this context, community engagement is often cited as a means of correcting the balance between contributions to the public and private good (see, for example, Subotsky, 2001) and, thus, to the forging of a new ‘social contract’ (Braskamp & Wergin, 1997) in which universities become jointly responsible, along with bodies in the community with which they partner, for social change.

Under apartheid, the ideology that dominated South African political and social life from 1948 to 1994, the higher education system contributed to the social segregation of South Africans and, thus, to social injustice in myriad ways. A new social contract between higher education and society is possibly more pertinent to this country than anywhere else in the

world.

I move now to discuss the context of my study in order to explore the idea of a new relationship between higher education and society in more detail.

1.2 Context

When the newly elected democratic government took office in April 1994, it not only had to confront the need for the rapid democratisation of a country which had long suffered the ravages of an unjust regime but also the need to engage with a rapidly globalising economy (Kraak, 2000). Many commentators (see, for example, Kraak, 2001; Oldfield, 2001; Fataar, 2003) have pointed out that the fact that the settlement that brought the African National Congress to power in 1994 was *negotiated* had profound implications for policy. Kraak (2001:88) points out that, whereas the national liberation movement had drawn on ‘left socialist formations’, once in power they were forced to adapt ‘what best can be described as social democratic and, at worst, neo-liberal thinking’. Fataar (2003:32) notes the fact that the negotiated settlement resulted in the ‘displacement of radical transformation objectives by a narrow reform object’.

Given that the brunt of unemployment resulting from boycotts and other action against the apartheid regime was borne by working class black South Africans, it is not surprising that, by the early 1990s, the idea that a failure to shift towards the so called new ‘modes’ of production requiring high skills associated with the global economy would result in even higher levels of unemployment was becoming prominent in the thinking of the Congress of South African Trade Unions (COSATU). This, coupled with the fact that the majority of black South Africans had long been denied access to the education which would allow them to do anything other than menial work, then resulted in support for educational reform that linked vocational and formal training and that provided flexibility in the way learning could be achieved.

This had profound implications for higher education, as the following extract from one of the most important policy documents of the new era, the 1997 White Paper on Higher Education (Department of Education, 1997:7) illustrates:

South Africa’s transition from apartheid and minority rule to democracy requires that all existing practices, institutions and values are viewed anew and rethought in terms of their fitness for the new era. Higher education plays a central role in the social, cultural and economic development of modern societies. In South Africa today, the challenge is to redress past inequalities and to transform the higher education system to serve a new social order, to meeting pressing national needs, and to respond to new

realities and opportunities.

Service-learning, the particular focus of my study, is accorded a privileged position in relation to the transformation of higher education in South Africa. According to the Council on Higher Education (CHE, 2006: 23), the body appointed to advise the Minister on higher education, ‘service-learning is entrenched in a discourse that proposes the development and transformation of higher education in relation to community needs’.

Singh (2001) argues for a broadening of the idea that universities should be responsive to society by suggesting that an indicator of the transformation of higher education is the extent to which the proficiency of graduates is not locked within the disciplines. Waghid (2002:459) agrees, noting that ‘[h]igher education has a role to prepare people to go beyond the present and be able to respond to a future which cannot be imagined’.

To achieve the mandate of a broadened transformation agenda, writers such as Singh (2001) and Calhoun (1998, in Singh, 2001) propose the re-insertion of ‘public good’ as a focus in higher education. For Singh (*ibid*), the concept of ‘public good’ involves the combination of the existence of higher education as a public good *per se* and higher education playing a role in the achievement of public good through its purpose and functions (Singh, 2001). The achievement of the public good through purpose and function thus requires a deeper inquiry into the ways in which the core activities of higher education (teaching, research and community service) could yield public good benefits.

The debate about the need to consider the ‘public good’ provides a platform for more focused attention on community engaged activities such as service-learning in higher education curricula. Such debates underline the unsustainability of practices polarizing the *university* and *society* thus creating the impression that each has a stereotypical homogenized form.

This study has a particular focus on service-learning framed under the umbrella of community engagement. It is important to point out that, although specific attention is paid to service-learning in the literature and policy documents, it is community engagement as a whole that is espoused as one of the core responsibilities of higher education.

1.3 Community engagement in Higher Education

Hall (2010:2) refers to the ‘epistemological ambiguity’ shadowing community engagement in higher education evidenced in the wide spectrum of understandings of the concept itself:

Community can, and does, mean anything from a university's own staff and students and a ¹*community of practice* to civic organisations, schools, townships, citizens at large and 'the people' in general. Engagement is an equally challenging concept that, when interrogated, opens up a rich vein of inquiry into the nature of knowledge itself.

It is therefore not surprising that community engagement is conceived differently within the higher education context. Community engagement activities include its infusion into teaching and learning (for example, as service-learning) as well as the community service provided by academic staff in their professional capacity and by students using their disciplinary expertise (CHE, 2006). Each institution articulates, through its mission statement, its interpretation, response to and prioritising of community engagement (Hlengwa, 2010b: 25).

Ernest Boyer's (1990) seminal *Scholarship Reconsidered* can be said to have influenced South African universities' conceptions of community engagement. Boyer's argument is for a scholarship of engagement in which an institution's mission and vision is strengthened by a purposeful relationship between the institution and its community through academic endeavours, which enhance student-learning (Boyer, 1990:18).

However, despite policy encouraging and legitimising community engagement, Lazarus (2001) notes that, to a large extent, South African higher education institutions are unsuccessful in operationalising community engagement as stated in their mission statements. Lazarus bases his observation on data derived from the three-year rolling plans submitted by the thirty six publicly funded higher education institutions to the Department of Education in 1999, where only one institution included community engagement as part of its plan. However, in the years since 2007, it would appear that this situation has shifted. In 2012, perusal of websites showed that eleven of the (now) twenty-three universities have established directorates of community engagement.

Reports on their auditing of universities, prepared by the Higher Education Quality Committee (HEQC), also offer insights into the various conceptions of community engagement and its associated practices. Pollack (1999) suggests that the differentiated response of universities to community engagement can be associated with institutional classification and identity and how this influences the conception of community engagement adopted by the institution. Figure 1 below captures this relationship.

¹ Original emphasis.

Type	Primary Educational Mission	Concept of Community engagement
Liberal Arts Institutions	Citizenship training for democracy, character formation	Engaging with ideas of value, training citizens for public life
Research Institutions	Expanding the knowledge base	Applying knowledge to solve social problems
Professional Institutions (Universities of Technology)	Teaching applied concrete skills	Training professionals to perform needed social functions, clinical training
Private Institutions	Demand-absorption driven, career-vocationally-oriented education	Access to educational opportunity and employment opportunities

Figure 1: Typology of institutional responses to community engagement (adapted from Pollack, 1999)

In South Africa, the liberal arts classification does not exist. However some institutions classified as ‘traditional universities’ do offer general formative degrees often with a dual major structure. Liberal arts institutions disassociate daily life from education since 'education and the pursuit of truth is seen as service in and of itself' (Pollack, 1999:15). Research or teaching endeavours, in such institutions, are often prioritised over community engagement.

Research institutions frequently conceptualise community engagement within the primacy afforded to knowledge creation and application. Early attempts to reconfigure the South African higher education system in the wake of apartheid (Leteseka & Maile, 2008), eschewed the category of the research-intensive’ university. However, more recently, a piece of research conducted by the Centre for Higher Education Transformation (CHET) and presented at a Higher Education Summit called by the new Minister of Higher Education and Training, Dr Blade Nzimande, in 2010 has refocused attention on this category of institution. Based on an analysis of input and output factors, where input included factors such as the amount of subsidy and fee income per student and the number of staff qualified at doctoral level and output factors included success rates and research outputs, this piece of research

identified five universities, the University of Cape Town, the University of Stellenbosch, Rhodes University, the University of Pretoria and the University of the Witwatersrand, as producing research outputs far outweighing those of other universities in the system.

That research-focused universities tend to conceptualise community engagement within the primacy afforded to research certainly appears to be the case at the University of Cape Town where an analysis of best practice related to what the University terms 'social responsiveness' showed that twenty four of thirty eight cases examined (i.e. 64%) fitted into the category 'research oriented responsiveness' (McMillan & Pollack, 2009).

According to Pollack (1999:16-17), professional institutions 'see the development and application of professional skills as the basis of their service of the community' (Pollack, 1999: 16-17). Students are required to demonstrate the application of their professional skills *pro bono* in order to graduate, thus moving closer to Boyer's (1996) Engaged Scholarship. In South Africa, the former 'technikons', which were vocationally oriented institutions, incorporated what was known as 'co-operative learning' in their curricula. As Powell (2011) points out, however, this learning was generally constructed simply as experiential learning and not as a form of service to the industries or communities in which students were placed. In the early 2000s, technikons became universities of technology in the sizing and shaping processes intended to create a single coherent higher education system (Leteska & Maile, 2008). Boughey (2010) notes that this sort of work-based learning had more or less collapsed in the five universities of technology she analysed.

Pollack's (1999) typology shows private institutions fulfil community engagement through the provision of higher learning and professional training (Pollack, 1999). In South Africa, the Ministry of Education acted swiftly to stem a proliferation of poor quality private higher education in the 1990s by refusing to allow institutions to use the category 'university' and by putting in place stringent requirements for accreditation. With the exception of a few large providers, most private higher institutions are small and focused in that they tend to run courses in single subject areas (for example, fashion design). To my knowledge, no research has been conducted on community engagement in these institutions.

Each institution's understanding of community engagement is related not only to type but also to organisational capacities, which impact on how the institution responds to and resolves the tension of balancing the focus of the three pillars research, teaching and community engagement (Hlengwa, 2010b:26).

1.3.1 Service-learning

As indicated earlier in this chapter, community engagement activities can be conceptualised along a continuum. Figure 2 below provides a diagrammatic representation of the community engagement continuum. Indicated are the blurred boundaries between the different activities and of significance is the way service-learning is positioned. The community engagement activities on the right hand side of the continuum are generally acknowledged as experiential learning activities. These are influenced mainly by Dewey's (1963) claim that education should include interaction and reflection. This is often stated as the formula 'experience plus reflection equals learning'.

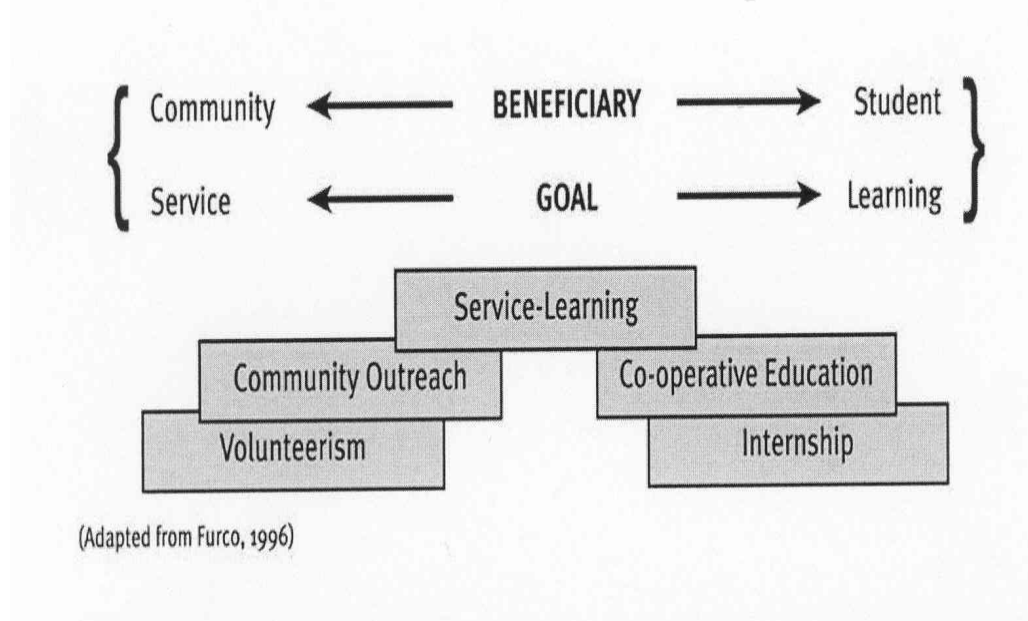


Figure 2: The community engagement continuum (Furco, 1996 in CHE, 2006)

In the figure above, service-learning is positioned as striking a balance between 'service', the engagement outside the formal teaching space (i.e. in the community site), and 'learning', the engagement within the formal teaching space (i.e. in the university). Thus the claim is built that service-learning is ideally positioned to allow movement between the everyday discourses of the community into the elevated discourses of the university.

Although, in practice, forms of service-learning could well be traced back further, it is in the 1960s that the term is reported to be coined in United States of America (USA). The emergence of service-learning occurred against a backdrop of dwindling resources, increasing multiculturalism in communities and apathetic political participation (Hollander, 1999).

Service-learning was thus seen as a vehicle that would promote engagement and rejuvenate democracy (Bringle & Hatcher, 2002), through ‘the integration of community service into academic study’ (Hollander, 1999:vii).

The concept of service-learning then spread from the USA into other countries. Because service-learning was billed as a means of connecting educational processes with real-world issues and needs, it is not difficult to see why the concept was picked up in South Africa in the 1990s given the desperate need for change in the country following the shift to democracy.

In South Africa, service-learning was then boosted by funding from the Ford Foundation of America, for the Community Higher Education Service Partnerships Project (CHESP) in the mid 1990s. This funding came at a time when ties between American and South African institutions were being re-established following the demise of apartheid. CHESP was introduced into South Africa by a non-profit making organization the Joint Education Trust (JET) in 1998. Perold (1998) points out that the CHESP programme evolved out of a study that indicated that, although South African institutions had included community service (engagement) in mission statements, very few institutions were equipped with policies to operationalize this area of academic endeavour. The study identified that community engagement in South African higher education was largely ad-hoc or individualistic with very tenuous (if any) links to teaching and learning and research (Perold, 1998).

McMillan (2002:57) points out that the central aims of CHESP were to develop partnerships:

... between historically disadvantaged communities, higher education institutions, and the service sector so as to meet the twin goals of addressing the needs of these communities; and supporting the transformation of higher education institutions in relation to these priorities.

This linked well with the call for a new ‘social contract’ between higher education and society that I have indicated earlier in this chapter.

Service-learning is a contested term. It is therefore helpful to frame the understanding of the term in the context of this study. The contestation is evident in the various definitions and terminology claiming to describe the same learning activity. On careful examination it can be seen that the variants indicate where the emphasis or importance is placed. Examples of this are the terms ‘academic service-learning’ and ‘community service-learning’. In an attempt to avoid a tilted emphasis and to create a balanced focus, the term is hyphenated to illustrate a balance as well as an interrelationship between service and learning (Furco, 1996:11). Through this interrelationship there is a kind of *service* and a kind of *learning* that is

generated through service-learning (CHE, 2006).

Bringle and Hatcher's (1995:112) frequently cited definition distinguishes service-learning from other forms of community-engaged learning:

Service-Learning is a credit bearing, educational, experience in which students participate in an organised service activity that meets identified community needs and reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility.

It is not hard to understand why Bringle and Hatcher's definition is used frequently in the South African context as it is aligned with the framing of service-learning as having the potential to contribute to the call for higher education to place less emphasis on ivory tower deliberations and instead engage with societal issues, thereby showing a more visible measure of social responsiveness (Singh, 2001).

The potential of service-learning to contribute to this relationship is congruent with perceptions expressed within the field. Butin (2005:vii), for example, notes that because service-learning has the advantage of:

... combining theory with practice, classrooms with communities, the cognitive with the affective, [it] seemingly breaches the bifurcation of lofty academics with the lived reality of everyday life.

As indicated above, in South Africa, universities need to respond to the call for graduates who are knowledgeable in the disciplinary area in which they have chosen to study and who also aware of societal pressures and, thus, are ready to participate as responsive citizens in a new democracy. This call forms the basis for an argument for service-learning as a pedagogic strategy with which to accomplish the aims of the new social contract (Hlengwa, 2010a,b).

Although there is a strong argument for the use of service-learning in higher education, this argument draws on a particular discourse regarding the role and purpose of higher education. Literature focused on the systemic and philosophical issues impacting on the higher education context illustrate how within this context there is a state of flux, which Barnett (2000a) refers to as 'super complexity'. This state of flux means that spaces are continuously opened up, which makes higher education an 'increasingly fragmented' (Rowland 2000) context in which to work. Thus, as it stands, the argument endorsing service-learning does not consider the complex nature of institutions of higher education themselves nor of higher education systems. In addition, I would argue, it does not fully appreciate the space between the *Horizontal Discourse* (Bernstein, 1996, 1999, 2000) of the world outside the university and

the *Vertical Discourse* of the academy itself. I will deal with this distinction in much more detail in Chapter Three.

1.4 Rationale for the study

American-based authors Mabry and Parker-Gwin (1998) list the following disciplines as having successfully incorporated service-learning: Anthropology, Environmental Science, Psychology, Education, Political Science, Economics, Biology, Social Science, Mathematics and Physics. In the South African context, a search of the literature indicates either that there is little infusion of service-learning or that academics are involved in service-learning activities but do not publish on their activities. South African examples that do appear in the literature feature most prominently in disciplines such as Psychology (Roos *et al.*, 2005), Pharmacy (Karekezi *et al.*, 2007) and Information Systems (Bell, 2007). A similar trend is noticeable in the 2008 CHE publication (*Service-learning in the Disciplines: Lessons from the Field*) where the majority of the cases draw from professionally orientated disciplines (CHE 2008). Further investigation into the available literature reveals an imbalance indicated by profuse examples of service-learning in some disciplines and a dearth of examples in others.

It is my contention that the available literature focuses attention on the benefits of service-learning as a means to authenticate it as a pedagogic tool. Kolb's (1984) *Experiential Learning and Learning Styles Inventory* is frequently cited in order to legitimise service-learning activities (Bawden, 1999; O'Brien, 1999; Naudé, 2003; Oates & Leavitt, 2003; Ash & Clayton, 2004; Marchel, 2004; Pribbenow, 2005; Roos *et al.*, 2005).

While Kolb's work might be useful in justifying the use of service-learning, I argue that it is insufficient to account for where/how/when and why service-learning is infused into the curriculum because the model reflects more of an interest in individual learning approaches. Kolb's model explains the process but cannot account for the contexts in which service-learning emerges (Rayner & Riding, 2000).

Lange notes that the role of community engagement in higher education is 'very under-theorised' (Lange, 2008 in CHE, 2008b) and I would agree. As a result of my own reading in the field, I arrive at the conclusion that the available literature does not illuminate factors impacting on implementation decisions regarding the infusion of service-learning. My main research question results from this conclusion:

What systemic factors impact on how and where the infusion of service-learning is possible in higher education curricula?

The aim of this study is therefore to identify the conditions, which enable or constrain the infusion of service-learning in curricula. The following chapter provides a more detailed discussion of the theoretical perspective chosen to conceptualise this study. This theoretical framework allowed me to look at a range of conditions impacting on the possibility of the emergence of service-learning opportunities. My exploration of these conditions ranges across international, national and institutional contexts. In addition, the framework meant that I was able to achieve coherence between ontology, epistemology and methodology (Crotty, 1998).

As I have tried to indicate in this chapter, community engagement in general and service-learning in particular have been constructed in South African discourse as a means of developing a new relationship between the universities and society in a fledgling democracy. Questions about where, when and how service-learning can be infused are important in the context of the claims being made about community engagement and service-learning since it may well be the case that, in some contexts, it is simply more difficult to infuse service-learning into the curriculum than in others. Identifying constraining conditions will allow for more nuanced understandings of contexts and, even more significantly, will offer the potential of managing constraints in the future.

As later chapters of this thesis will show, I have chosen to look at the way the nature of disciplines impacts on infusion. This interest stems from my observation that, on the surface at least, some disciplinary contexts appear to be more conducive of the emergence of service-learning than others. In making this choice, my study is aligned with other work in South Africa (see, for example, Luckett, 2012; Shay *et al*, 2011; Shay, 2012) which draws on what is widely termed the ‘sociology of knowledge’ developed by British Sociologist Basil Bernstein and continued by the likes of Karl Maton of the University of Sydney, Rob Moore of the University of Cambridge and Michael Young of the London Institute of Education. I have chosen *not* to take a ‘narrow’ sociology of knowledge approach, however, in that my aim is not simply to explore how knowledge structures condition the emergence of service-learning but rather how ‘underlying values and social norms . . . constitute and privilege one curriculum over another’ (Shay, 2012: 15) and particularly how ‘social constraints constituted by the staff and students . . . produce and reproduce these curricula’ (*ibid*). To this end, I draw on the work of another British sociologist, Margaret Archer, whose construct of ‘analytical dualism’ (Archer, 1995a, 1996) allows me to consider *structural, cultural and agential* conditions. Archer’s theory will be explicated more thoroughly in Chapter Two of my thesis.

In my study, I draw extensively on the disciplinary typology developed by Anthony Biglan (1973a,b). Biglan’s work is based on a continuum of characteristics than can be used to

differentiate between disciplines. These characteristics organize disciplines according to shared beliefs ‘within a scientific field about theory, methodology, techniques and problems’ (Landahl & Gordon, 1972:58 in Muller, 2008).

Biglan marks four distinctions in total. However, whether a discipline is ‘hard’ or ‘soft’ in nature is key. The descriptors ‘applied’ or ‘pure’, which will be elaborated on later, provide additional information and are thus used as qualifiers for the ‘hard’ or ‘soft’ distinctions.

In essence, Biglan’s argument is that disciplines classified as ‘hard’ characteristically exhibit a high degree of ‘paradigmaticity’ or agreement about what is known, what still needs to be known and what can count as knowledge. As a result, ‘hard’ disciplines demonstrate a high level of ‘social connectedness among scholars’ (Muller, 2008:11). Academics in the ‘hard’ disciplines tend to work together addressing problems which have been identified in co-operation with each other using similar methods and techniques. As a result, the production of new knowledge is highly efficient. While initiates in the ‘hard’ disciplines share common ontological and epistemological beliefs, they also tend to differentiate between areas of study more closely. One other effect of this paradigmaticity is that there is more agreement about what should be taught. This also means that teaching can be more efficient and that teaching tends to focus on declarative knowledge at least in the early years of study. It is not hard to see how the natural sciences fit into the ‘hard’ category.

In contrast, the ‘soft’ disciplines demonstrate lower levels of ‘differentiation, interdependence and social connectedness’ (Muller, 2008: 11). Academics in soft disciplines tend to produce fewer research outputs than their peers in the ‘hards’ because they cannot benefit from mutual efficiency. Similarly, their teaching tends to be more individualistic with the result that they need to spend more time preparing lectures and so on. Typically, areas in the humanities and social sciences are categorised as ‘soft’.

Biglan (1973a,b) also distinguished between ‘pure’ and ‘applied’ disciplines with the result that the following typology emerged.

Hard pure	Soft pure	Hard applied	Soft applied
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Other theorists followed Biglan in attempting to explore the nature of the disciplines. Kolb (1981), for example, distinguishes between the ways initiates engage with knowledge. In the ‘pure’ disciplines the emphasis is on reflection - either on abstract knowledge, as is the case with ‘hard pure’, or on concrete knowledge in ‘soft pure’. In the ‘applied’ domain the

emphasis is on the active engagement with either abstract knowledge in ‘hard applied’ or concrete knowledge in ‘soft applied’.

Becher’s (1989) seminal work on academic culture expanded Biglan’s typology by identifying cultural and cognitive styles within the four disciplinary clusters. The title of Becher’s book, *Academic tribes and territories: intellectual enquiry and the cultures of disciplines* initiated a tradition of understanding the disciplines as ‘tribes’. In 2001, and following a period of rapid change in higher education, Paul Trowler joined Becher to offer second edition of this work entitled *Academic Tribes and Territories: Intellectual enquiry and the cultures of disciplines* (Becher & Trowler, 2001). The focus in this edition was on the implications of the changes in higher education for disciplines and the way the clusters identified by Becher had been able to adapt to a changed higher education landscape.

The contributions by Kolb (1981), Becher (1989) and Becher & Trowler (2001) added substance to Biglan’s original distinctions, leading to an understanding of ‘pure’ disciplines as areas characteristically focusing on theoretical and abstract advancement. The idea that a discipline is ‘applied’ denotes a focus on ‘know-how’ knowledge drawn from either the ‘hard’ or ‘soft’ disciplines.

Biglan’s typology has stood the test of time and continues to inform contemporary work such as that of Trowler (2011). It was also used extensively by Mary Henkel in her studies of the way policy change impacted on academic identity (Henkel, 2000, 2005a,b). My thinking on drawing on Biglan is that disciplinary culture could be one of the conditions enabling or constraining the infusion of service-learning in the curriculum.

I use one university, Rhodes University, as a case for my study. Within this overarching case, I then explore instances of where some form of service-learning has emerged in four different disciplinary areas, Entomology, Environmental Science, Philosophy and Psychology, as ‘sub-cases’ within a case. These areas exemplify Biglan’s (1983a,b) categories of ‘hard pure’, ‘hard applied’, ‘soft pure’ and ‘soft applied’ disciplinary types. I therefore deliberately bring discipline structure into the study of one university that is also of a particular type. The location of these ‘sub-cases’ within a case comprising one institutional type is deliberate as it allows me to explore the structural and cultural conditions existing in one type of university in depth. While this might be considered a limitation of my study, I consider it a strength.

1.5 Thesis Structure

Chapter Two presents the overarching theoretical framework used to conceptualise the study. This framework draws on the work of critical realist Roy Bhaskar (1989) along with the work

of Margaret Archer noted above. The study also employs substantive theories used in conjunction with the framework for the purposes of analysis. These are discussed in Chapter Three. Chapters Two and Three therefore offer an overview of the frameworks I use.

In Chapter Four, I turn to the construct of Curriculum and conduct a review of the literature in this area. I do this as the focus of my study is the emergence of service-learning in curricula at one university. A theoretical explanation of the construct of curriculum is therefore necessary.

In Chapter Five I discuss research design – and in particular the research decisions made in the course of my study.

Chapter Six then provides an overview of structural and cultural conditioning at a systemic level. I draw on this overview in the following four chapters, which look at each of the sub-cases in turn. Chapter Seven deals with the case of Entomology, Chapter Eight with Environmental Science, Chapter Nine with Philosophy and Chapter Ten with Psychology.

The final chapter, Chapter Eleven, then provides a cross-case analysis as a conclusion to my thesis.

Chapter Two: Meta-theoretical framework

2.1 Introduction

In this chapter, I discuss the meta-theories – Bhaskar’s (1989) critical realism and Archer’s (1995, 1996, 1998) social realism – which framed my exploration of the conditions enabling and constraining the infusion of service-learning in curricula at Rhodes University. This meta-theoretical framework, entrenched in philosophical realism, is aligned to the substantive theories employed for their explanatory powers in analysing the four cases which make up the study and reported upon in Chapter Three.

‘Philosophical realism’ is an approach to social science that rose to prominence in the 1980s, providing an alternative to the deconstructionist turn (Baehr, 1990:765). In an article reviewing realism, Baehr (1990) points out that critical realism’s credibility has been influenced by a number of prominent contributors, including Harré (1979), Sayer (1984), Silverman (1985) and Pawson (1989). However, he attributes the major stimulus to realist thinking since 1975 to Roy Bhaskar’s books, articles and lectures.

Bhaskar’s perspective has undergone various metamorphoses – an indication of an unfolding process of ongoing refinement. This refinement can be traced in the final chapter of Bhaskar’s (1989) *Reclaiming Reality. A Critical Introduction to Contemporary Philosophy* in which he settles for ‘critical realism’ as a term that encompasses his perspective (Baehr, 1990). This study adopts critical realism as part of a framework that I see as best aligned to my interest of describing and offering explanations of how, when and where service-learning can be infused into curricula in contemporary South African universities.

In his book *Dialectic: The Pulse of Freedom* (1993), Bhaskar outlines the development of critical realism as comprising four levels, the ‘First Moment’, the ‘Second Edge’, the ‘Third Level’ and the ‘Fourth Dimension’. This study uses only the ‘First Moment’, which is concerned with ‘being’ or ontology. I will return to a discussion of this stratified ontology later in this chapter.

Critical realism is a philosophical position in which knowledge is the primary focus and from which emancipatory consequences have the potential to emerge. Although empiricist realism and critical realism share common logical, epistemological and metaphysical bases, there are differences in the subject matter and methodologies employed by each approach (Bhaskar, 1989). My intention is that these will become apparent as my discussion in this chapter proceeds and as a result of my discussion of research design in Chapter Five.

2.2 The role of meta-theory in research

According to May (2001:30), the findings of social research are meaningless unless they are situated in a theoretical framework which is made explicit because ‘facts do not speak for themselves’. Scott (2000:633) holds similar views stating that empirical research methods should be ‘underpinned by a meta-theory embracing epistemological and ontological elements’.

However, for pragmatists such as Kemp (2005) and Kivinen and Piivoinen (2006), overarching theoretical frames such as critical realism are deemed unnecessary for social science research. The pragmatist maxim Charles Peirce (in Bertilsson, 2004) holds that a hypothesis can be clarified by tracing its practical (and empirically observable) consequences. My own preference is for a more philosophical grounding of the ontological status of the hypotheses themselves.

Critical realism is used as an ‘under labourer’ in this study. Sibeon (2004: 12) describes the purpose of an ‘under labourer’ as a means of ensuring that general concerns relating to ontology, epistemology and methodology are given due attention.

2.3 Critical realist ontology

Critical realist philosophy argues that what is observed and experienced in social interactions is the result of structures and causal mechanisms which exist at deeper ontological layers . Thus the ontological assumption is that reality is stratified. Bhaskar distinguishes between three layers of reality: the Real, the Actual and the Empirical (Bhaskar 1998). Although it is possible to arrive at knowledge of reality, Bhaskar (1989) maintains that this does not equate nor reduce knowledge to direct experience. The reduction of the world to what we can know of it is termed by critical realists the ‘epistemic fallacy’. Thus, critical realist ontology advocates an understanding that reality is differentiated, structured and stratified (Archer 1995a, Bhaskar 2008).

Bhaskar draws a distinction between the intransitive and the transitive. The separation of these domains assists in avoiding the epistemic fallacy, which, as I have already indicated, is the conflation of being (ontology) and knowledge of being (epistemology) (Bhaskar, 1989, 2008). The intent of avoiding conflation does not suggest critical realism proposes definitive conclusions about the social world. Rather, it is acknowledged that all knowledge is fallible and exists within frameworks subject to constant contestation, amendments and transformation (Baehr, 1990).

According to Bhaskar (2008), the level of the Real constitutes the deepest layer of reality. The Real consists of the Empirical and the Actual as well as the underlying structures and causal mechanisms which give rise to events at the level of the Actual and experiences and observations at the level of the Empirical. This layer comprises material elements and structures that possess their own causal powers. Bhaskar (2008) identifies the Actual as the domain of events – what actually happens when structures and mechanisms are activated. The Empirical consists of commonsense experiences and observations.

The following figure captures the encompassing nature of the Real.

	Domain of the Real	Domain of the Actual	Domain of the Empirical
Mechanisms	✓		
Events	✓	✓	
Experiences	✓	✓	✓

Figure 3: The ontological location of phenomena (Bhaskar, 1978: 13)

Fairclough, Jessop and Sayer (2002:5) offer the following useful explanation of Bhaskar’s ontology:

The ‘real’ refers to objects, their structures or natures and their causal powers and liabilities. The ‘actual’ refers to what happens when these powers and liabilities are activated and produce change. The ‘empirical’ is the subset of the real and the actual that is experienced by actors.

Fairclough *et al.*’s explanation allows us to see how the Actual and the Empirical are transitive while the Real is intransitive.

In the context of my study, my understanding is that service-learning exists as a series of events at the level of the Actual. These events will include, *inter alia*, meetings at which curriculum decisions are made, teaching sessions, visits to the community and so on. In my study, events can be discerned from curriculum documentation. Experiences and observations of these events then exist at the level of the Empirical and, in my study, are captured by interview data and curriculum documentation. Both the experiences and observations and events are understood to emerge as the result of the interplay between structures and mechanisms in operation at the level of the Real.

The task of the critical realist researcher is to explain the emergence of events and experiences and observations in the transitive domain, by identifying the structures and mechanisms, which have causal powers and which are understood to exist in the transitive domain of the Real (Bhaskar, 2008). However, while some causal powers can indeed be identified, this does not preclude the existence of mechanisms and structures that are dormant and thus have the potential to contribute to the emergence of different kinds of events and experiences and observations of those events. Thus, the intransitive domain of reality is understood as complex and consisting of a plurality of objects whose precise modes of operation, determination and interaction can be discovered by scientific investigation and not established by dictum (Bhaskar, 1989).

The complexity and plurality of structures and mechanisms at the level of the Real can be attributed to the fact that social phenomena are manifest in 'open' systems, 'that is, in systems where invariant regularities do not obtain' (Bhaskar, 1989:45). In an open system, the aim is to explore a range of explanatory powers rather than focusing on prediction and control (as, for example, in positivism). In open systems there is no clear connection between cause and effect. Danermark, Ekstrom, Jakobsen and Karlsson (2002:206) explain the lack of a direct relationship between cause and effect in the following way '[w]hen generative mechanisms operate in combination with each other, the more mechanisms involved, the more difficult to anticipate the outcome'.

Research underpinned by a critical realist ontology is intent on identifying and trying to understand the structures and mechanisms which operate as 'causal forces' at the level of the real. The concept of 'causal forces' or 'causal powers' rather than direct causation entails an understanding that objects of study have intrinsic properties (structures and mechanisms) which are capable of generating events. These causal properties exist (and are thus 'real') regardless of whether they are exercised or whether they are known (identified).

Related to causal forces is the critical realist concept of 'emergence', which refers to:

. . . situations in which the conjunction of two or more features or aspects gives rise to new phenomena, which have properties which are irreducible to those of their constituents, even though the latter are necessary for their existence' (Sayer 2000:12).

In other words, emergence occurs when something comes into being as a result of the interaction of two or more objects with causal powers at the level of the Real. Lockwood (1964) describes emergent properties as the 'what' component of social systems and their generative powers explain how they exert causal effects upon people.

2.3.1 The role of language or discourse in critical realism

One of the most important papers exploring the role of language in critical realism is that of Fairclough *et al.* (2002). These authors (*ibid*: 2) urge critical realists to pay marked attention to ‘the nature and significance of semiosis of which language is a component’ because semiosis² has ‘real effects on social practice, social institutions and social order’.

The argument in the paper focuses on establishing language and discourse as structures and mechanisms at the level of the Real. Fairclough *et al.* (*ibid*: 5) do this by first noting the causal power of language. Language, for example, can be persuasive and its power to do this is dependent on the language user making appropriate language choices. They then go on to note that:

Though dependent on actors for their reproduction, languages and other semiotic structures/systems always already pre-exist any given actor (or subset of actors), and have a relative autonomy from them as real objects, even when it is not actualised (*ibid*: 6).

The role of language in an open system is then explored with Fairclough *et al.* pointing out that, although the causal effects of semiosis depend on texts being understood, it is possible for multiple understandings of those texts to emerge. The example given (drawing on Bhaskar & Collier, 1998) is that of a speech made during an election campaign. The speech itself may offer reasons for voting in a particular way. However, there is no guarantee that it will be understood in the same way by all listeners with the result that it may well lead to a vote being given to an opposing party.

Because of its status as a sign system, language is, of course, related to discourse. Kress (1989:7) defines discourses as:

. . . systematically organised sets of statements which give expression to the meanings and values of an institution. Beyond that, they define, describe and delimit what it is possible to say and not possible to say (and by extension – what it is possible to do or not to do) with respect to the area of concern of that institution, whether marginally or centrally.

Although discourses are manifest in numerous sign systems, in my study I examine their emergence in the language of interview transcripts and curriculum documentation collected as

² Loosely defined as any form of activity or process involving sign systems. Language is a sign system used to make meaning.

data. I therefore understand language as a structure at the level of the Real and discourses as mechanisms in the same domain.

2.4 The ‘critical’ of critical realism

As I have already indicated, this study examines conditions enabling and constraining the infusion of service-learning in the curriculum. Given the importance of the concept of ‘emergence’ in critical realism, infusion can be conceptualised as emergence at the levels of the Actual and the Empirical.

Danemark *et al.* (2002) remind us that in social science, the objects of study (in my case, service-learning) are socially produced and thus dependent on human action for existence. Social conditions therefore impact on what can and cannot be done. If social conditions which are not conducive to positive outcomes can be identified, then it becomes possible to work with these conditions in order to bring about change. Critical realists maintain that there is an intrinsic connection between explanation, arrived at through the use of a depth ontology, and emancipation. Bhaskar (1989) argues that in order to comprehend emancipation, ‘depth’ explanations are necessary to uncover the power and the disposition required to foster positive outcomes.

The purpose of critical realist research is therefore to lay bare the generative mechanisms at the level of the Real in order to allow them to be examined in relation to their emancipatory power. Benton and Craib (2001:120) identify a close connection between Bhaskar’s critical realist philosophy and Habermas’s social theory, since both see ‘a close connection between knowledge of self and society and human emancipation, or freedom from domination’.

Educational discourse in the late 1960s fuelled by the rise of neo-Marxism claimed that curricular arrangements previously regarded as ‘unproblematic’ reflected the ruling group’s control of the education system (Corson, 1991). Education was effectively managed to serve the interests of hegemonic groups (*ibid*). Young (1971) and Bernstein (1975) both argue that ‘hierarchies in educational systems, in curricular knowledge categories and in research paradigms and approaches are a direct reflection of macro social arrangements and historical forces’ (Corson, 1991:225).

The above argument holds true in the higher education context, and especially in South Africa, thanks to the legacy of apartheid. As I have indicated in Chapter One, in the educational arena the national agenda of redress translated into a call to construct a new social contract between government, communities and higher education institutions as a means of emancipation and of redistributing all available resources more equitably. My study focuses

on service-learning, which has been allocated a particularly privileged position in this social contract. The adoption of Bhaskar's depth ontology provides a framework that allowed me to examine the structures and mechanisms at the level of the Real which give rise to curricular events at the level of the Actual which are then observed and experienced at the level of the Empirical.

As I have already indicated, the concept of causal power is a central feature of critical realist ontology. Critical realists have been criticised for their application of the concept of causal power to social structures. The critique is fuelled by what some see as the illegitimate separation of causal powers from social structures, thus violating the general logic of causal power (see Harré et al, 1996; Varela 2001, 2002). Arguably, Margaret Archer's (1995a, 1996, 1998) Social Realism and, in particular, her concept of analytical dualism begins to deal with this criticism. I therefore included Archer's work in my meta-theoretical framework.

2.5 Social Realism

In this study, I drew on Margaret Archer's (1995a, 1996, 1998) social realism as a means of developing a nuanced understanding of the emergence of service-learning at Rhodes University.

As I have indicated in Chapter One, the emergence of service-learning across disciplines appears to be uneven. Disciplines are complex structures which exist within even more complex organisational configurations such as universities and professional bodies (Willmott, 2002). Structural configurations also include national and international higher education systems (Henkel, 2000). Archer's work allowed me to understand the ontological status of social structures, cultural systems and agency more profoundly and, in doing so, enables a fine-grained analysis of social processes in complex contexts.

According to Archer (1995a), examination of both structure and agency is central to any study of the social world if the theoretical tendency to conflate or elide the 'parts' and the 'people' is to be avoided. For Archer (*ibid*), the 'parts' are the social structures and the cultural system while the 'people' are those who operate within a particular system. The notion of 'analytical dualism' signifies her departure from forms of theorising that conflate the relation between the two (Archer, 1996:xiv). Analytical dualism has its roots in Lockwood's (1964) combination of general functionalism and conflict theory.

Archer (1996:xiv) claims that her theory is:

. . . capable of linking ‘structure and agency’ or ‘culture and agency’, rather than sinking the difference between the ‘parts’ (organisational or ideational) and the ‘people’ who hold the positions or ideas within them.

Archer (1995a, 1996, 2000) identifies three forms of conflation: i) ‘upwards’ conflation which conceptualises society as an aggregate of individuals with the power to act freely, ii) ‘downwards’ conflation which sees individuals and their actions as being determined by society and, finally, iii) ‘central’ conflation which draws on Giddens’ (1984) structuration theory in order to conceptualise society and individuals as mutually constitutive thus, according to Archer, making it impossible to discern the relative impact of one on the other.

The conflation of what is with what can be known (i.e. the epistemic fallacy) has already been noted earlier in this chapter. Archer’s work (*ibid*) identifies another form of conflation involving the reduction of one entity to the position of being a by-product of another entity through ‘upwards’ or ‘downwards’ conflation. Thus, ‘downwards’ conflation constructs individuals as an epiphenomenon of society and ‘upwards’ conflation the opposite – society as an epiphenomenon of individuals. Archer’s critique of ‘central’ conflation is that the ‘parts’ and the ‘people’ are ‘clamped together in a conceptual vice’ (1996:87) with the result that it becomes impossible to identify the role of agency in social change. Archer is also critical of structuration theory because of its failure to accord full ontological status to the cultural system.

In contrast, Archer’s analytical dualism accords ontological status to structure, culture and agency in a stratified ontology (drawing on Bhaskar, 1989) and provides us with an explanatory methodology that allows for distinctions to be drawn regarding the relative influence of structure or culture on agency or vice versa (Archer, 1995a: 57-64).

Analytical dualism, then, entails viewing structure, culture and agency as ontologically separate categories, each with distinct properties and powers. Although the ongoing interplay between these categories is acknowledged, Archer insists on separating structure, culture and agency, making the categories ‘temporally distinguishable’ *for purposes of analysis* (1996:66). This emphasis on *analytical* dualism is important since the suggestion is not that structure, culture and agency work independently of each other. Rather, the understanding is that separation for purposes of analysis allows us to better understand the interplay between them.

Key to Archer’s theory is the idea that, as entities with ontological status at the level of the Real, Structure, Culture and Agency possess emergent powers and properties termed Structural Emergent Properties (SEPs), Cultural Emergent Properties (CEPs) and Personal Emergent Properties (PEPs). It is through the exercise of these properties that emergence

occurs. Archer does, however, distinguish between the causal powers and properties of agents (i.e. PEPs) and those pertaining to structure and culture. In order to understand this distinction, however, it is necessary to explore the notion of ‘orders of reality’.

Archer (2000) joins other critical realists in acknowledging three levels or ‘orders’ of reality: the natural, the practical and the social. The practical order consists of knowledge of the practices and artefacts through which knowledge of both the natural and the social worlds is filtered. The natural order involves embodied knowledge about nature. The social order is discursively constituted and knowledge of it involves knowledge of the cultural system.

Archer (2007:7) points out that causal powers and properties in the natural, practical and social orders work differently to those exercised by human agents:

On the one hand, the properties of objects in the natural order, artefacts in the practical order, and structural and cultural properties in the social order, are very different from one another but nevertheless the exercise of their causal powers is *automatic* ... On the other hand, most, though not all, human powers work reflexively rather than automatically. We have the power to lift various objects in our vicinity but also the ability to determine whether we do so or not.

Archer (*ibid*) also points to the possibility of powers and properties being dormant. An agent might choose not to exercise her power to lift something. In a similar fashion, the power of water to make some objects float (for example, a log or a body) will not be activated unless someone throws the object into the water or wades into it herself (*ibid*:8).

2.5.1 Structure

The term ‘structure’ is used to refer to different things in critical and social realism. Bhaskar and Archer, for example, use the term to refer to both social and conceptual structures. Sayer (1992: 92) defines structure as ‘a set of internally related elements’. In the context of my study, these ‘internally related elements’ could include a service-learning relationship between a group of students and members of a community, the curriculum which allowed this relationship to take place, the course in an institution of higher education into which the service-learning has been infused, and so on. Together these elements would form a structure. It would thus be possible to conceptualise a ‘structure’ of service-learning in a university.

Kaidesoja (2007) notes that some theorists argue that social structures are ontologically dependent on the activities of agents – an observation evidenced by the fact that structures

cease to exist when they are no longer reproduced via the activities of individuals. This echoes Giddens' (1984) notion that structures are virtual and become real when instantiated by people.

Archer (1995a: 252) follows Bhaskar in arguing that structures are activity dependent. Although structures are ontologically 'real' they do not require people's understanding or 'discursive penetration' to exert causal influences on people. Nevertheless structures require activity of agents to be reproduced or changed (*ibid*).

Sibeon (2004) and Archer (1995a) offer different arguments regarding current actors' influence on the social contexts in which they find themselves. Archer notes that current actors are not responsible for the way the social context is at the present time (Archer 1995a). Sibeon (2004), on the other hand, maintains that current actors who have been in a particular context for some time may be complicit in the way a particular structure is configured.

Structures can condition people's actions by creating enabling or constraining conditions for actions; however, structures do not have the ability to determine what people will do (Archer, 1995a). Whilst structures limit the nature of action that is possible in a given structural context, structures cannot act because they are not reified entities; they are dependent on people to either endure or change.

2.5.2 Culture

Archer's (2002) conception of culture includes ideas, beliefs and values particular to a context and which stand in a logical relationship to each other. Archer's conception thus corresponds to Popper's (1972) definition of the 'third world' (in Carr, 1977). Popper distinguishes between three worlds: the first world being the physical world, the second world being the mental world and the third world being ideas in the objective sense as they appear in books and other texts (Willmott, 2002). Objects in the 'third world' have an objective existence and are possible objects for human thought. It is this objective world which Archer conceptualises as culture. In Popper's theory, however, it is a precondition that the mental world mediates between the physical world and the world of objective ideas. According to Zeuner (1999), this mental world is by and large absent in Archer's theory of culture although her later work on reflexivity (Archer, 2000, 2007) would contest this statement.

In my study, I conceptualised ideas existing within discourses which, drawing on Kress (1989:7), are understood as 'systematically organised sets of statements'. An idea would constitute a statement within a discourse.

As noted above, cultural items exist with or without a knowing subject and thus enjoy ontological independence (Archer, 2002). Agents within a particular context have differential understanding and knowledge of prevailing ideas. These propositions can be subjected to the law of contradiction; hence ideas can stand in relationships to other ideas that are either complementary or contradictory (Archer, 1996). The relationship of ideas to each other has socio-cultural importance which impacts on and influences agents' actions (*ibid*). The differential knowledge that agents possess within a context allows for the possibility of less powerful agents being manipulated by those who have more power or for contradictory items to be hidden from agents. Or, alternatively, it allows for agents to be aware of contradictions but to choose to ignore them (*ibid*).

Agents are placed into particular situational logics based on the ideas they hold (Archer, 1996). In order for ideas to influence the social context, agency is critical (Archer, 1996). This is, as I have pointed out earlier, because of the potential for entities in the social order to remain dormant unless activated. The relations between different parts of the structural system make up the situational logic within the structural domain. In the same way, the situational logic pertaining to the relations between ideas is associated with the cultural domain. Complementary or contradictory structural elements or cultural ideas construct situational logics (Archer, 1996).

The concept of situational logic bears significance to this study as it seeks to understand which structural and cultural elements are complementary or contradictory and how these impact on the infusion of service-learning in curricula. For instance, it is possible to identify discourses endorsing service-learning as a pedagogic tool which may, however, be contradicted by others related to the discipline or to 'appropriate' academic identities. Situational logic is equally significant in the structural domain, where the infusion of service-learning could be contingent on whether the disciplinary knowledge structures or funding structures are enabling or constraining.

2.5.3 Agency

Central to Archer's conceptualisation of agency are the notions of concerns and projects. According to Archer (2007:6):

... individuals develop and define their ultimate concerns: those internal goods that they care about most ... No one can have an ultimate concern and fail to do something about it. Instead, each person seeks to develop a concrete course of action to realise that concern by elaborating a 'project', in the (fallible) belief that to

accomplish this project is to realise one's concern ... Thus, the answer to why we act at all is in order to promote our concerns; we form 'projects' to advance or to protect what we care about most.

Realist tradition holds that agential properties and powers emerge from the three orders of reality (the natural, practical and social). Individuals prioritise their concerns in the three orders thus determining their unique identities. These ideas are of significance to this study as the pursuit of service-learning could clearly become a 'project' identified as a response to a concern.

The realist notion of stratification extends to agency, which is stratified into the 'person', the 'agent' and the 'actor' (Archer, 1995b, 2000). The agent and the actor are elements of an emergent social identity. According to Archer (2000), the emergence of our 'social selves' occurs at the interface of 'structure and agency' – or in other ways through the interplay of PEPs and SEPs.

Archer further distinguishes between two groups of agents: primary agents and corporate agents. She defines primary agents as 'collectivities sharing the same life chances' (2000:263) i.e. primary agents are born into existing social and cultural structures either enabling or constraining how they act. This, however, does not mean that agents are completely passive and at the mercy of socio-cultural structures because they possess PEPs (Archer, 1995b, 2000).

In social realist terms, agency is 'reflective, purposive, promotive and innovative' (Archer, 1995b: 249). Agents have the power to critically reflect upon their social context so as to redesign and seek alternatives to it. Primary agents have a limited effect in changing social contexts and, therefore, in pursuit of change they use their PEPs to transform themselves into corporate agents.

Archer (1995:258) defines corporate agents as cohesive groups:

... who are aware of what they want, can articulate it to themselves and others, and have organised in order to get it, can engage in concerted action to re-shape or retain the structural or cultural feature in question.

Archer then makes a further distinction between collectives, termed 'corporate agents' and individual actors, termed 'social actors'. Corporate agents exercise causal power through the social groups to which they belong. Thus, a group of students could function as corporate agents. Social actors, on the other hand, exercise power by virtue of the roles and positions they occupy and the manner in which they occupy them (Archer, 1995b). Roles need to be seen as distinct from their occupants, as roles belong to the domain of structure. The roles

occupied by social actors pre-exist their incumbents and remain relatively stable over time despite variations in the way they are occupied by individual incumbents. Thus the roles themselves have constraining and enabling powers.

Agents are part of social groups regardless of whether they are primary or corporate agents. The personal emergent property of reflexivity provides the impetus to seek changes when the current social context is less than desirable.

Agents' stances are based on their vested interests in sustaining or changing a particular *status quo* (Archer 1995a). The degree to which agents are able to influence the conditions in which they find themselves is dependent on the nature of the power they are able to exercise within the context. The level of power they are able to exercise is, in turn, dependent on the material resources that agents can bring to bear on their efforts either to reproduce or change structural conditions (Archer, 1995a). Furthermore, vested interests are often based on the material resources that agents stand to gain or maintain through reproduction or changing the structures.

Agents are endowed with certain characteristics that enable them to occupy roles in unique ways (Archer, 1995a). However the properties and powers that agents bring to roles may be stifled by structural constraints which are either imposed on them by other actors who occupy other roles or through other constraining mechanisms within a system. It is through exercising their agency within a role that agents can be in a position to transform the role as well as other aspects of the social structure within which they operate.

2.5.4 System level considerations

The phenomena that this study aimed to illuminate are the conditions enabling and constraining the infusion of service-learning into curricula at a higher education institution. Archer points out that, at a systemic level, various structures stand in relation to each other and the relations between these various structures make up complex systems she refers to as systems integration (Archer, 1995a). Within a system, the relationship between the structures can be complementary or it can be incompatible. These may be internal and necessary or external and contingent (Archer, 1995a). A high degree of complementarity between the various structures is referred to as high system integration. It follows then that low system integration exists where there are high levels of incompatibilities between structures within a system. A system that exhibits either high or low integration impacts on whether the agents within that context find the conditions enabling or constraining.

The same is also true of the cultural system. A cultural system can display a high level of integration where ideas compatible with each other dominate. A system could also display low levels of integration with many dissonant ideas discernible.

The context of this study is Rhodes University, which operates within the South African higher education system, which is in turn impacted on by phenomena such as globalisation and democratisation. Therefore an examination at a systems level is important as such an examination can be instrumental in understanding how practices embedded in discourse are sustained or changed. An analysis at a systems level is provided in Chapter Six of this thesis before moving on to look at the four cases that comprise the study.

2.5.5 Structural and cultural conditioning and the interplay of agency

Structure and culture are said to have causal efficacy. However, agents are the only efficient causes in social life (Archer, 2002). This is because the powers of structures and cultures are enabled or constrained by the actions of agents³. Structural and cultural conditioning is therefore mediated through agents. Through their ability to reason and reflect on their context, agents use their material or ideational capacities to either reject, accept or circumvent the effects of structure and culture. Through their reflexive capacities and their capacity for self-monitoring, agents weigh up structural and cultural conditions in order to choose the most appropriate reason for a subsequent course of action (Archer 1995b). Each decision has trade-offs, and either benefits are incurred or impediments are created for the agent. Social actors have to weigh the constraints against the degrees of freedom attached to structured positions (Archer 1995a; Porpora 1989; Willmott 2002). The reasons for carrying out one's duties are objectively structured and place a premium on their execution and a price on their reputation.

Willmott (2002) argues that any discussion of the implementation of curriculum policy must make reference to the differential degrees of bargaining power that derive from prior structured interests and their interplay over time.

The ideas and practices of agents are limited by a set of prevailing values, beliefs, ideas and practices with which agents are confronted. Agents conceptualise these ideas and practices within a context and are thus conditioned by the context. As a result, our understanding of the world is context dependent (Sayer, 2000). Agents have different histories and thus

³ I have cited Archer's example of the buoyancy of water in this respect.

conceptualise their work differently from each other and envisage different possibilities of acting within and upon the world they confront (Sayer, 2000; Archer 1995a). It stands to reason, then, that social or cultural conditions can be misconstrued or misunderstood or misinterpreted. Thus, the way things are is independent of the way they are experienced or described by people (Archer, 1995). Structure and culture condition social contexts and this impacts on agents' actions in various ways. When agents set about changing the context, therefore, they are in effect exchanging one set of benefits and constraints for another.

2.6 Conclusion

The discussion in this chapter begs an answer to the question 'What does this mean for my study?'

In exploring infusion possibilities for service-learning, I could have designed a study which elicited data from role players across Rhodes University. Like many other qualitative researchers working within a broad hermeneutic tradition, I then could have set about trying to find commonalities regarding what promotes infusion. My understanding of Bhaskar's critical realism allowed me to see, however, that such a study would work only at the level of the Empirical – at the level of observations made by participants in my study and the experiences they report. In this respect, I would be implicated in what is usually termed the 'double hermeneutic' – interpreting the interpretations of others and acknowledging the relativity of my interpretation and those I interpreted as I did so. A critical realist framework offers the potential of doing more than this – of excavating beyond the Empirical to the intransitive layer of enduring structures and mechanisms comprising the Real. While, like other critical realists, I need to acknowledge the fallibility of my excavation to this level, the attraction for me lies in the ontological category of the 'real' rather than remaining in the relative categories of the Actual and Empirical.

Bhaskar's critical realism is the backbone of my study. I then used Archer to elaborate on my excavation to the level of the Real thanks to her insistence on analytical dualism, which allowed me to explore more closely the interplay of structure, culture and agency in each of the cases comprising the study.

The way this impacted on my actual research design is reported in Chapter Five of this thesis. For now, I leave the meta-theory and move to an exploration of the 'substantive' theory that further facilitates my analysis.

Chapter Three: Substantive Theory

3.1 Introduction

As I have indicated in Chapter Two, the pursuit of a depth ontology enables social theorists to identify and clarify the relations between structure, culture and agency in order to describe what is observable as well to provide an account of the conditions that foster what is observable.

In the previous chapter, I discussed the role of critical realism and social realism in the meta-theoretical framework. This study focuses on context specific practices as well as ‘the implications for the relations between positions and strategies for agents within particular contexts’ (Maton, 2005:48). Thus, the use of substantive theory in conjunction with the overarching meta-theoretical frame, critical and social realism, is necessary. Critical and social realism offer the possibility of exploring and explaining reality. However, an additional language of description and explanation is necessary (Archer 1995a; Maton, 2005). Without such substantive theory, critical and social realism themselves do not have the capacity to provide accounts of the interplay of structures and mechanisms at the level of the Real which lead to the emergence of events at the level of the Actual and experiences and observations at the level of the Empirical.

Basil Bernstein’s (1996, 2000) theory of cultural transmission provides ‘an external language of description of unambiguously conceptualising similarity, variation and change’ within pedagogic contexts (Maton, 2005:64). Educational research such as this study requires thick description as well as thick explanations, which Maton and Muller (2007: 64) maintain is offered by Bernstein’s concepts of classification and framing. A language of description is necessary in order to understand the conditions enabling and constraining the emergence of service-learning in the knowledge domains of each of the four cases comprising this study. I therefore employed Bernstein’s (*ibid*) theory of the transmission of culture and knowledge as this offers a rich language of description and explanation with a highly generative capacity.

According to Moore (2004), Bernstein’s is a relational theory with a depth ontology grounded in critical realism with a social realist epistemology. This assertion is supported by Maton and Muller (2007:14) who note that:

Bernstein dug beneath the empirical features of education to explore their underlying structuring principles (most famously in terms of codes) and then excavated further to analyse what generates these principles.

Bernstein's position in critical and social realism therefore accords with the meta-theoretical framework chosen for my own study affording coherence between meta-theory and substantive theory. In my study, I used Bernstein's work to explore structures and mechanisms with the potential to reproduce and transmit culture. This is important given that my interest, service-learning, constitutes an innovation in most South African universities. The extent to which structural and cultural conditions constrain the emergence of service-learning by reproducing and transmitting existing cultural and structural conditions is therefore of significance.

Maton (2005:64) maintains that Bernstein's theory of cultural transmission points to the significance of the interaction of structural relations and agency. However, Bernstein's analysis of agency arguably is less nuanced and stratified than Archer's (1995a, 1996, 2000) approach in which it is possible to show how agents' emergent properties and powers can enable them to act on or within a structural or cultural context to effect change or create stability. My use of Archer (*ibid*) in conjunction with Bernstein therefore has the capacity to add to the insights provided by this study.

3.2 Bernstein's theory of pedagogic relations and transmission

Bernstein's (1975, 1996, 2000) work centres on examining and explicating the function of power and control within pedagogic settings and pedagogic relations. The structure of what Bernstein (1975:205) terms the 'three message systems' - the curriculum, pedagogy and evaluation - is analysed in order to provide a level of abstraction which then enables generative explanations in a wide range of contexts.

This study eventually aims to make claims about curriculum infusion possibilities. As I have indicated in Chapter One, the role of knowledge and discipline structures in infusion is a particular focus. Thus Bernstein's (1999, 2000) work on knowledge and disciplinary structures is of significance to the study.

Bernstein developed his theory in order to describe the discursive and transmission practices in pedagogic contexts as well as to show the process of selective acquisition. For Bernstein (2000:3), the pedagogic relationship is not limited to relationships within school contexts:

My concept of pedagogic practice is somewhat wider than the relationships that go on in schools. Pedagogic practices would include the relationships between doctor and patient, the relationships between psychiatrist and the so-called mentally ill, the relationships between architects and planners. In other words, the notion of pedagogic

practice which I shall be using will regard pedagogic practice as a fundamental social context through which cultural reproduction-production takes place.

The implemented curriculum can be seen as a pedagogic context where ‘organisational, discursive and transmission’ practices related to a disciplinary field and its curriculum are negotiated. Pedagogic contexts are sites of an ideological struggle over what Maton (2000, 2005) terms the ‘legitimation device’. The concept of the legitimation device brings together Bernstein’s pedagogic code and Maton’s legitimation codes. The pedagogic code is used to analyse the way in which existing knowledge is recontextualised and transmitted.

Bernstein (1990, 1996, 2000) identifies three ‘fields’ related to knowledge: the field of production where knowledge is produced, the field of recontextualisation where knowledge is reorganised in the form of a curriculum so that it can be transmitted in the field of reproduction – i.e. in schools and classrooms. The pedagogic code is used to analyse the fields of recontextualisation and reproduction. The legitimation code, on the other hand, provides a means of analysing the field of production. I will return to discuss the three fields in more detail later in this chapter.

In the section below I explain the concepts of classification and framing which form the basis of Bernstein’s theory.

3.2.1 Classification and framing

Bernstein (1996:5) distinguished between ‘power’ and ‘control’. For Bernstein (*ibid*), power creates, legitimises and reproduces boundaries between categories such as gender, race and social class. As a result ‘power always operates to produce dislocations, to produce punctuations in social space’ (*ibid*). This means, as Bernstein also points out, that power ‘operates on the relations between categories’ (*ibid, original emphasis*). Control, on the other hand ‘establishes legitimate forms of communication appropriate to the different categories’ (*ibid*).

Some of Bernstein’s earliest work (Bernstein, 1996) focused on language and resulted in the identification of ‘restricted’ and ‘elaborated’ codes. A restricted code, according to Bernstein (*ibid*), is used by insiders sharing a common set of assumptions about and understandings of a topic. An elaborated code, does not make such assumptions and understandings and is thus much more explicit. For Bernstein (1996:135), it was not the case that one code was better than the other but rather that:

Society ... may place different values on the orders of experience elicited, maintained and progressively strengthened through the different coding systems.

Bernstein (1996: 135) associated these different codes with social class:

The orientation towards these codes may be governed entirely by the form of the social relation, or more generally by the quality of the social structure.

For Bernstein (1996), this meant that the restricted code was associated with communication typical of the working class and the elaborated code with communication typical of the middle class. This was because the middle classes were more socially and culturally mobile and therefore needed to be able to master a code which could function beyond an immediate context. In identifying these codes, Bernstein insisted that people are socialised into codes. A working class child, however, would be unlikely to be exposed to the elaborated code to the same extent as her middle class peer. Her only socialisation to an elaborated code, in fact, might occur in formal schooling.

I have already indicated in Chapter Two how research conducted from a neo-Marxist perspective beginning in the 1960s began to problematise curricula that had previously been understood to be culturally and socially neutral. Some of this work (see, for example, Christie, 1985) identifies the way language and language teaching has been used to restrict access and success⁴. Bernstein's understandings of power and control can now be seen to be pertinent to this discussion. Power, as I have already indicated, relates to the creation and maintenance of boundaries. Control relates to what counts as legitimate communication within bounded spaces. If we draw on Bernstein's notions of restricted and elaborated codes, we can see how power can be used to create boundaries between social classes and how language, in pedagogic discourse, can then be implicated, through control, in the maintenance of those boundaries in education.

Bernstein (2000:4) goes on to use the concepts of 'classification' and 'framing' 'in order to show formally how dominant power and control relations are realised as forms of pedagogic communications' (2000:4). Classification (C) refers to the degree to which boundaries between categories are created and maintained – or as Bernstein (1996: 6) notes 'of the relations *between* categories' (original emphasis). Bernstein's focus on the relations between categories is rationalised by the claim that 'A can only be A if it can effectively insulate itself from B' (*ibid*).

⁴ This work has continued in South Africa particularly in relation to South Africa. See, in particular the work of Boughey (for example, 2002) and McKenna (for example, 2004).

Bernstein (*ibid*: 7) continues:

What preserves the insulation? What preserves the space between? What preserves the regions of silence? What preserves the dislocations? What preserves the insulations is *power*.

This observation allows him to distinguish between degrees of classification. Strong classification (usually written as C+) indicates strong insulation between categories – between, for example, academic disciplines. Weak classification (written C-) refers to weak insulation.

Bernstein (*ibid*) goes on to note:

In the case of strong classification, each category has its unique identity, its unique voice, its own specialised rules of internal relations. In the case of weak classification, we have less specialised discourses, less specialised identities, less specialised voices. But classifications, strong or weak, always carry power relations.

Wheelahan (2012:28) refers to classification as the ‘what’ of knowledge and notes that it is ‘associated with the power to define “what counts” and how it is to be differentiated’ (*ibid*).

Framing (F), as I have already indicated, is about regulating modes of communication within bounded spaces. Framing is concerned about *how* meanings are to be put together, the forms by which they are to be made public, and the nature of the social relationships that go with it (Bernstein, 1996:12).

More specifically, Bernstein (*ibid*:12-13) argues that framing is about relations between ‘transmitters’ and ‘acquirers’ and thus regulates who can acquire what and when. For Bernstein, then, framing is the ‘internal logic of pedagogic practice’ (*ibid*). In pedagogic practice this relates to: i) selecting the knowledge to be communicated ii) sequencing the communication (i.e. what comes first, what comes next) iii) its pacing (or the rate at which the communication proceeds) iv) the criteria used to evaluate acquisition and v) ‘control over the social base which makes transmission possible’ (*ibid*:13).

Again, it is possible to indicate the strength of the framing. Where framing is strong (F+), the transmitter has strong control over elements i) to v) above. Where framing is weak (F-), the acquirer has more *apparent* control. Bernstein emphasises that control on the part of the acquirer is only apparent. Wheelahan’s (2012) account of the introduction of vocational education and training (VET) in Australia, for example, shows how, in spite of claims that learners were ‘empowered’ by its introduction, the way in which ‘tightly prescribed learning

objectives are to be achieved' (Bates, 2005:6 in Wheelahan, 2012:129) means that students are allocated responsibility for learning but no control over it.

Wheelahan (2012:29) terms framing the 'how' of knowledge since it 'establishes legitimate forms of communication appropriate to the different categories.' Thus 'classification determines *what* can be expressed, but framing determines *how* it is expressed' (*ibid*, original emphasis).

The concepts of classification and framing are useful for studies such as mine as they allow researchers to conceptualise ways in which knowledge and knowledge-related practices exert an influence over a field such as higher education. As I will show in Chapters Seven, Eight, Nine and Ten, both classification and framing impact on possibilities for the infusion of service-learning.

Bernstein (1996) identifies two types of curricula each of which is underpinned by the concepts of classification and framing. Strong classification and strong framing (C+F+) results in a 'collection code' curriculum. When classification and framing is weak (C-F-) the result is an integrated code curriculum. In a collection code curriculum, subjects are taught in isolation from each other with strong boundaries separating subject content. Strong disciplinary identities are typically exhibited in a collection code curriculum.

In an 'integrated' code curriculum, subjects are not isolated from one another and the boundaries between them are broken down. In this modality strong disciplinary identities have to shift to the background to make way for an overarching principle on which the integration is based.

In the context of this study, the concepts of collection and integrated code provide a frame for exploration of the structural and cultural conditions enabling and constraining service-learning.

3.2.2 Disciplinary knowledge structures

The aim of this study was to explore conditions enabling or constraining the infusion of service-learning in the curriculum. One way of doing this would be to examine what constitutes a discipline and if indeed the structures of the disciplines enable or constrain the infusion of service-learning. Donald's (1995:7) definition identifies criteria by which to distinguish disciplines:

[Disciplines] are defined epistemologically by their distinctive set of concepts, the logical structure of propositions, the truth criteria by which propositions are assessed, and the methodology employed to produce the propositions.

The idea of disciplines having distinctive cultural elements can lead to viewing disciplines in a dualistic and static way. This was illustrated in Snow's (1959) *The Two Cultures and the Scientific Revolution* in which he identified a polarised split in the western intellectual world. For Snow (*ibid*), disciplines are split between the humanities – seen as traditional and conservative - and the sciences seen as epitomising change and development. According to Maton (2006:45), at the core of this split between the sciences and humanities was 'the struggle over which could lay claim on to the title of "culture" and so status in the academy'.

Bernstein's early work (1971, 1975) explores disciplinary structures. An exploration of this work must begin, however, with a brief discussion of what he terms *Vertical* and *Horizontal discourse*.

3.2.2.1 Vertical and Horizontal discourse

As Wheelahan (2012) points out, Bernstein draws on Durkheim (1960) in pointing out that all societies distinguish between sacred, or esoteric, knowledge and profane, or mundane, knowledge. Esoteric knowledge involves the use of theory and concepts. Mundane knowledge, on the other hand, is knowledge about the world around us. Both kinds of knowledge are necessary. Mundane knowledge is necessary for the material reproduction of knowledge while esoteric knowledge is necessary because it allows us to go beyond the limitations of individual experience in order to classify and make connections between the material and immaterial worlds. In doing this, esoteric knowledge offers 'collective representations' (Wheelahan, 2012:19) of society. These then allow society to:

... conduct a conversation with itself about alternative futures by permitting discussions about what society *should* be like (*ibid*, original emphasis).

Muller (2000:78) points out that these collective representations also play a normative role in that they establish the norms and values that hold society together.

Bernstein (1999) links mundane knowledge to what he terms '*Horizontal discourse*' (original emphasis) and esoteric knowledge to '*Vertical discourse*'. Each discourse is characterised by its own rules which give it its structure and which inform the further development of knowledge within the discourse.

Mundane knowledge is context embedded and, consequently, is only understandable within specific contexts. Gamble (2006) points out that it is particularised knowledge because the extent to which it is relevant in a particular context determines what is selected to count as knowledge. Because mundane knowledge is context embedded, it cannot easily be applied to other contexts. Bernstein (2000:157) notes that *Horizontal discourse* is:

... likely to be oral, local, context dependent and specific, tacit, multilayered and contradictory across but not within contexts.

Esoteric knowledge, on the other hand, is powerful knowledge precisely because it is decontextualised and is therefore divorced from its material base. Bernstein (2000:30) refers to the gap between esoteric knowledge and its material base as the 'potential discursive gap'. This gap provides a space for the 'unthinkable', the 'impossible' and the 'not-yet-thought' (*ibid*:31) and, because of this, esoteric knowledge has the potential to become *generative* knowledge.

Esoteric knowledge is structured as '*Vertical discourse*'. In *Vertical discourse*, the integration of knowledge occurs through the integration of meanings into 'symbolic structures of explicit knowledge' (Bernstein, 2000:160). Similarly,

The procedures of *Vertical discourse* are . . . linked, not by contexts, horizontally, but the procedures are linked to other procedures hierarchically (*ibid*).

Vertical and *Horizontal discourses* have implications for learning. Acquisition of *Vertical discourse* requires a learner to integrate meaning rather than 'consum[ing it] at the point of its contextual delivery' (*ibid*). If students are limited to the learning of contextually specific *applications* of knowledge then they are unlikely to develop the conceptual tools needed for other contexts. Students therefore need access to the 'system of meaning' (Wheelahan, 2012:21) embodied in *Vertical discourse*.

Bernstein's work on *Vertical* and *Horizontal discourses* is of significance to my study given that service-learning has been widely proposed as a means of bridging the gap between the university and wider society. The university is the domain of *Vertical discourse* whereas society can be conceptualised as multiple contexts in which *Horizontal discourse* is embedded. Service-learning therefore needs to straddle both discourses in order to allow students to make connections and see the differences between the two. This is not the focus of my study, however, as my aim is not to explore service-learning in action but merely to begin to explore its emergence. Of more significance to my study than the distinction between *Vertical* and *Horizontal* and *discourse*, therefore, is the distinction between hierarchical and horizontal knowledge structures within *Vertical discourse*.

3.2.2.2 Hierarchical and horizontal knowledge structures

Within *Vertical discourse*, Bernstein (2000) identifies two 'knowledge structures'. The first:

... takes the form of a coherent, explicit and systematically principled structure , [which is] hierarchically organised in the sciences (*ibid*: 157).

Practitioners working within a hierarchical knowledge structure, share a common knowledge base. Knowledge is produced through the integration of observations lower down in the structure into ever more overarching theories and principles. A hierarchical knowledge structure is usually depicted as a pyramid:

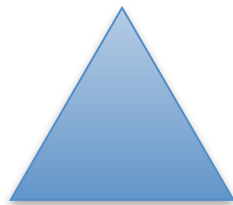


Figure 4: A hierarchical knowledge structure within vertical discourse

Induction into disciplines with a hierarchical structure involves understanding the basic principles lying low down in it before moving on to ever more complex principles and theories. This has important implications for teaching since a curriculum must be sequential. If gaps occur, then it is likely that learners will experience problems as they try to move up the structure. Physics is an example of a discipline with a hierarchical knowledge structure.

In contrast to a hierarchical knowledge structure, a horizontal knowledge structure within Vertical discourse *segments* knowledge. In linguistics, for example, distinctions are made between socio-linguistics and social linguistics. Each segment, according to Bernstein (2000) has its own language and may also have different ontological and epistemological assumptions. As a result, it may be impossible for practitioners in each segment to 'talk' to each other. Knowledge is developed in a horizontal structure through the development of

... new languages with their own designated speakers and rules that define the language, distinguish it from others within the discipline, and generate canonical texts and names (Wheelahan, 2012:22)

Bernstein (2000:164) notes that gaining access to disciplines with a horizontal knowledge structure involves learning to ‘manage names and languages together with their criticisms’.

A horizontal knowledge structure is typically depicted in the following way.



Figure 5: A horizontal knowledge structure within vertical discourse

I deal with the nature of disciplines in more detail in Chapter Four.

3.2.2.3 Singulars and regions

Bernstein (1999, 2000) refers to bodies of knowledge that are strongly classified as *singulars*. Most academic disciplines are thus singulars. Singulars are inward-looking and tend to have very few references to the world outside the discipline.

Bernstein (2000) points to change undergone by singulars resulting in what he terms the ‘regionalisation’ of knowledge. Regionalisation refers to the weakening of boundaries between disciplines with the result that knowledge from a range of disciplines may be merged to form a new field, termed a ‘region’.

At the same time as the boundaries between disciplines are weakened, the boundaries between the discipline (which is the site of knowledge production) and fields of practice are also weakened. This means that regions come to ‘look outwards’ and the boundary between the ‘sacredness’ of academic knowledge and the ‘otherness’ of ‘everyday’ or ‘profane’ knowledge is weakened (Bernstein, 1975:213). Examples of regions would be the pharmaceutical sciences, engineering and environmental science.

Bernstein’s distinction between singulars and regions is significant in the context of my study since one of my interests is the way disciplinary type impacts on emergence.

3.2.3 The Pedagogic Device

Critiques of the way education works to reproduce social systems have already been noted in this thesis. Bernstein's (2000:4) response to such critiques, mostly located in neo-Marxism, was to criticise their focus on the *content* of pedagogic discourse rather than on the *relay* of power relations. His conceptualisation of the 'pedagogic device' speaks to this criticism.

According to Bernstein (2000:27):

The pedagogic device regulates fundamentally the communication it makes possible, and in this way it acts selectively on the meaning potential. The device continuously regulates the ideal universe of potential pedagogic meanings in such a way as to restrict or enhance their realisations (2000:27).

The pedagogic device works by mediating the way knowledge is distributed in society through a set of rules: 'distributive' rules, 'recontextualising' rules, 'evaluative' rules. According to Singh (2002:572), the pedagogic device allows us to analyse:

... the processes by which discipline-specific knowledge or domain-specific expert knowledge is converted or pedagogised to constitute school knowledge.

3.2.3.1 Distributive rules

Distributive rules relate to the field of production – i.e. to the sites where knowledge is produced (usually universities or research institutes). Distributive rules then regulate access to powerful Vertical discourses – i.e. to the conversations society can have about itself. They do this by aligning the school environment with the environments of *some* homes, most notably those headed by middle class, educated caregivers. A wealth of literature, not always located in a Bernsteinian perspective (see, for example, Gee, 1990; Heath, 1983), has explored the way these rules work.

3.2.3.2 Recontextualising rules

Recontextualising rules relate to the recontextualising field, which is then broken down further into the official recontextualising field (ORF) and the pedagogic recontextualising field (PRF). The ORF comprises government departments and other entities 'created and dominated by the state for the construction and surveillance of state pedagogic discourse'

(Bernstein, 2000:115). The PRF consists of entities training teachers, curriculum developers, materials developers and so on. Recontextualisation rules regulate which knowledge is selected for inclusion in pedagogic discourse and how that knowledge is classified and ordered. In the context of South African higher education, the ORF can be seen to comprise bodies like the Department of Higher Education and Training (DoHET) and also the South African Qualifications Authority (SAQA), which has influenced curriculum development since its establishment in 1995 through its privileging of the use of the learning outcome as an organising principle on the National Qualifications Framework (see Chapter Six for more details).

According to Singh (2002: 577):

Agents within the PRF select and organise, according to the principles or rules of specific pedagogic discourses, texts from a number of knowledge bases or domains, such as subject knowledge, teaching knowledge, content knowledge of learners and knowledge of self (Turner-Bisset, 1999). In so doing, they attempt to regulate what it means to take up and enact discipline specific pedagogic identities ...

Singh (2002: 577) goes on to argue that fields of recontextualisation are sites of struggle, particularly if the agents doing the recontextualisation are separated from the ORF and have a measure of autonomy over the construction of pedagogic discourses and practices. In higher education, these struggles are about different pedagogic models and tools deemed appropriate to the discipline. Disputes about models and tools (and service-learning would count as a pedagogic tool) thus become a struggle for control of the pedagogic device. Those controlling the device have considerable influence in shaping identity, desire and consciousness of the discipline (Bernstein, 1996).

In a university context, the fields of production, recontextualisation and reproduction can overlap therefore heightening contestation over control of the pedagogic device. Agents who have control of pedagogic device (for example, those who have garnered power by making a significant contribution to knowledge production and have thus risen up the academic hierarchy) can find it difficult to allow those they perceive as being in the margins of the discipline to work with the recontextualisation and reproduction of knowledge within the discipline.

In this study the focus is not so much on which agents control the pedagogic device, but rather whether having the control enables or constrains infusion possibilities for service-learning in curricula.

3.2.3.3 Evaluative rules

Evaluative rules relate to the field of reproduction and regulate ‘pedagogic practice at the classroom level, for they define the standards which must be reached’ (Bernstein, 2000:115). The extent to which learners can meet the requirements of the evaluative rules is dependent on their being able i) to recognise the type of knowledge they are required to deal with and ii) being able to reproduce this knowledge. It is at this point that the distinction between horizontal and Vertical discourse again becomes salient. Learners from working class homes are likely to have been given less access both to the recognition rules which will allow them to distinguish between the sacred and the profane and to the realisation rules which will allow them to reproduce Vertical discourse.

Bernstein (2000:28) sees distributive, recontextualising and evaluative rules as hierarchical and interrelated: ‘recontextualising rules are derived from the distributive rules, and evaluative rules are derived from the recontextualising rules’.

In the context of this thesis, the pedagogic device is useful in that it provides a language of description that will allow me to explore and account for the emergence of service-learning in the curriculum.

3.3 Critiques of Bernstein’s work

Archer (1995b) critiques Bernstein’s work maintaining that Bernstein neglects the role of the educational system. She argues that Bernstein’s focus is on micro interactions within schools or classrooms and that he thus fails to theorise how the micro processes are conditioned by, and in turn condition, the macro system (*ibid*). Although Bernstein does not officially respond to Archer’s critique, he argues in a later edition of his work (Bernstein, 2000:xvi) that his theory:

... attempts to integrate macro and micro levels of analysis, that is, interaction levels, institutional levels and macro institutional levels.

Arguably, Archer’s(1995b) critique of Bernstein is flawed by misreading. Bernstein is criticised for not paying enough attention to the role of politics and therefore, according to Archer, resulting in conflict in cultural transmission. Her contention is that he regards micro contexts as permeable and that they therefore allow decisions made by the dominant classes about educational codes to filter down to schools without contestation. This then creates the impression that there is a direct correspondence between macro-level ideas about instruction

or curriculum and what happens in institutions and that teachers merely reproduce systemic level ideas and structures in their classrooms (1995b: 216).

As a counter critique, Bernstein (1996) cites a range of research where the politics of cultural transmission are explicated. Bernstein (1996, 2000) maintains that, when decisions about cultural transmission are made, ideology is at play. His argument is that pedagogic fields (the fields of production, recontextualisation and reproduction) are arenas of struggle over the pedagogic device. Those who control the device are able to control what is transmitted and how. The struggles over ownership of the ⁵epistemic device (a corollary to the pedagogic device) enable the controllers to decide who can legitimately produce new knowledge and how they may do this (Maton, 2000).

Maton and Muller (2007:15) point out that Bernstein's theory focused on the social order and the nature of symbolic control. Wheelahan (2007a:2) furthers this argument by stating that Bernstein's focus was on the social relation to knowledge and that the need to focus on the epistemic relation is of equal importance:

Bernsteinian theory and critical realism constitute complementary approaches that together provide insights into the structures of knowledge, the content of knowledge, and the relationship between knowers and knowledge, which includes exploration of the social conditions under which knowledge is produced, and the extent to which these processes are mediated by power.

An additional criticism of Bernstein's work is that it is overly theoretical presenting British national education as the norm rather than developing a comparative sociology of education (Archer, 1995b). Maton's⁶ (2005) response to Archer draws attention to the way in which Bernstein's work has the generative capacity to allow researchers to theorise empirical discoveries in contexts beyond Britain and to consider possibilities not yet realised. This then allows them further to add to and develop his theory. This is evident in the collection of empirical work from a range of educational systems demonstrating the applicability and potential for comparison of Bernstein's work (see, for example, the work of Morai & Neves,

⁵ The epistemic device is the means by which "intellectual fields are maintained, reproduced, transformed and changed" (Maton, 2004).

⁶ Karl Maton, of the University of Sydney, has extended Bernstein's work into what is widely known as Legitimation Code Theory (LCT). Maton was a student of Bernstein's and has used his work in many different contexts. See www.legitimationcodetheory.com

1992 (Portugal); Vitale, 2001 (France); Singh, 2002 (Australia); Tsatsaroni, Ravanis, and Falaga, 2003 (Greece); Vorster, 2009 (South Africa); Wilmot, 2006 (South, Africa)).

3.4 Conclusion

In this chapter, I have attempted to justify my use of the work of Bernstein as substantive theory in a thesis that employs critical and social realism as meta-theories. Although Archer's (1995b) critique could be perceived as an indication of incompatibility between the meta-theory and the substantive theory, like others (see, for example, Vorster, 2009; Kotta, 2010), I believe there are ways in which the two sets of theory complement each other and contribute to my aim of exploring the conditions enabling and constraining the emergence of service-learning at a South African university.

Chapter Four: The Curriculum

4.1 Introduction

This chapter focuses on the ideas shaping current international, national and institutional understandings of higher education curricula. The chapter also discusses the relationship between theories of knowledge and curriculum. Some of this has already been explored in Chapter Three. This chapter builds on that work. My aim in exploring the literature on curriculum in higher education is to allow for a more in depth exploration of the conditions enabling and constraining the emergence of service-learning.

4.2 Reconfiguring higher education

My discussion begins by contextualizing the reconfiguration of the higher education sector in South Africa following the advent of democracy in 1994. I examine how globalisation and democratisation impact on higher education at international and national levels. I then deal with the concept of transformation, an issue that has been of central concern in South Africa given the need to address the legacy of apartheid⁷. In dealing with transformation, my emphasis lies in exploring the need for curriculum change. Given institutional autonomy, each university has the freedom to approach the issue of transformation in a different way. My focus, however, is on understanding how institutional views of the national transformation imperative influence curricula. The concluding paragraphs summarise the systemic implications of these three drivers.

In order to get a sense of how changes in the higher education context are experienced, it is interesting to note the comments of observers in other countries. Universities are described using terms such as ‘[in] crisis’ (Nixon, 1996), suffering a ‘crisis of legitimacy’ (Delanty, 1998), ‘in ruins’ (Readings, 1996) and ‘[subject to] fragmentation’ (Rowland, 2002). Perhaps the most apt concept describing the higher education context is Barnett’s notion of ‘supercomplexity’.

⁷ Apartheid is an Afrikaans term, coined by the then ruling National Party (1948-1994) which, directly translated, means ‘apartness’. Apartheid refers to the systemic exploitation, in which South Africa’s ruling party policy sanctioned racial segregation and discrimination in political, educational, social and economic spheres unjustly favouring the white minority at the expense of the black majority.

According to Barnett (2000a:257):

Higher education is faced not just with preparing students for a complex world but is faced with preparing them for a *supercomplex* world. It is a world where nothing can be taken for granted, where no frame of understanding or of action can be entertained with any security. It is a world in which we are conceptually challenged, and continually so.

Structural and cultural changes within society as well as state interventions in higher education systems have fashioned new roles for universities. At a systemic level, the pervasive postmodern worldview and the new global economic order has contributed to weakening the previously strong boundaries between different kinds of knowledge, between intellectual and manual work as well as between civil society, government and higher education (Barnett, 1997; Ensor, 2002; Lockett, 2001).

Much of the change affecting higher education has been underpinned by a shift in the status of higher education. Light & Cox (2001:2) cite Barnett (2003) and Thelin (2004) in noting that:

Historically, higher education has been an institution in society privileged and governed by an almost linear relationship through which academics defined and produced knowledge, which was then imparted and infused in society through its graduates and the dissemination of research.

Light & Cox (*ibid*) go on to note that this 'one way relationship' (i.e. a relationship from the university to society) resulted in perceptions of the university as an 'ivory tower in a 'real' world'. They also note that the nature of the relationship was signalled by the concept of 'academic freedom' without emphasis being placed on its 'customary social counterpart', responsibility.

More recently however, the university has become susceptible to prevailing ideologies, transitions and upheavals in society. The focus on accountability, for example, in Thatcher's 'New Public Management' brought higher education under the scrutiny of quality assurance agencies. Thus, the relationship between the university and society is no longer one-dimensional and that the university is now required to be 'of society' (Light & Cox, 2001:2).

This means that higher education:

... no longer simply shapes society through its knowledge contributions; it is rather shaped by society through knowledge specification – both in terms of students and research – which [society] contracts higher education to deliver’ (*ibid*).

These ‘knowledge specifications’ are driven and determined by social and economic transitions associated with the impact of, for example, globalization.

As society grapples with the social and economic complexities, its demands on higher education increase. For example, where higher education previously was structured and functioned to provide an education for the elite, it is now required to respond to demands for lifelong learning for the masses and for that education to be ‘relevant’ to life in contemporary society. In short, the new social imperatives have resulted in requirements for the transformation of higher education into a new ‘social mould’ (*ibid*).

As I have indicated, this new ‘social mould’ is strongly influenced by globalization and democratization. Although the ideas and material consequences emanating from these phenomena have infiltrated and shaped all sectors of society, my discussion will now focus on how these drivers have pushed higher education into reconfiguring itself.

4.2.1 Globalization

Perusal of the literature suggests that the terms ‘internationalization’ and ‘globalization’ are used interchangeably. However upon closer inspection there seems to be evidence that the latter is displacing the former as a means of describing changes in HE. Scott (2000:4) attributes this to globalization having modern currency as well as perhaps that ‘it seems a better way to express the urgency and volatility of internal exchange’.

Although these two concepts have been, and sometimes continue to be used, interchangeably, it can be argued that they do, in fact, refer to very different things. On the one hand, internationalization is an expansion of imperialistic dominance and ideas through science. According to Scott (2000:5):

Universities which have links or which draw on traditions from imperial worlds are established all over the world and science is ‘universalized’ through the lens of the imperial world.

On the other hand, globalization infers a ‘radical re-ordering of the status quo of the empirical world order’ (*ibid*) where sophisticated technology and cultural practices negate national boundaries allowing new regional blocks to emerge. The participation of nation states in financial markets on a global scale arguably marks the influence of the re-ordering Scott

refers to. International ‘connectedness’ achieved mainly through the internet, intensified travel and mobile telephones, in turn, contribute to the emergence of new regions encouraged by expanded regional free trade agreements (Maasen & Cloete, 2002:14).

It is undeniable that global trends and pressures strongly influenced the transformation processes undergone by nation states (*ibid*) and that higher education has been identified as an important vehicle to meet and withstand these pressures. Consequently, policy imperatives have focused on shaping higher education into an efficient and effective means of allowing nation states to be responsive to social and economic imperatives whilst, at the same time, remaining competitive in a global economy. These transformation reforms have shifted higher education institutions from being ‘national organizations with multiple social roles into global players mainly operating on the basis of economic considerations’ (*ibid*:17).

Olsen (2000, in Maasen & Cloete, 2002) points out that, as a result of the reform ideas shaping and transforming higher education systems, the relationship between higher education and society is deteriorating. This is the result of decreasing public support both politically and financially, as well as the considerable pressure on higher education to contribute to social and economic challenges and to be more accountable to society at large and to funders in particular. Directly challenging the traditional model, with its emphasis on academic freedom with self-steering institutions, is a model that conceptualizes higher education as a ‘service-company with society as its marketplace’ (Olsen, 2000 in Maasen & Cloete, 2002: 16).

Gumport (2000) highlights two dominant tensions positioning higher education. On the one hand, higher education is positioned as a ‘social institution’. This view leads to the expectation that higher education should produce graduates who have acquired the attributes associated with academic disciplines and who can, at the same time, contribute to important functions of wider society, thus cultivating citizenship. Competing with this is the positioning of higher education as ‘an industry’ where the emphasis is placed on institutions as training grounds for the workforce and thus as a means of fostering economic development.

The fundamental difference between these two approaches is in the understanding of the functions of higher education with respect to society. Each approach identifies what are perceived as the main problems confronting higher education and the best solutions and approaches to deal with these problems (Gumport, 2000). The ‘higher education as industry’ approach emerges as more pervasive due to institutions prioritizing effectiveness and efficiency thanks to policy imperatives. An adverse effect of this is that academic institutions may then subscribe to incongruent market discourses especially those privileging managerialism. Gumport, along with others such as Singh (2001) and Nussbaum (2002),

warns against the wholesale adoption of a market discourse as this narrows the social function of higher education. The adoption of managerial approaches to restructure higher education results in decisions pertaining to academic issues being made on the basis of very narrow understandings of the functions of higher education. The adoption of managerial approaches also invites extensive criticism of the legitimacy of academic institutions as public institutions.

The shift in higher education's position to being 'of society', as described earlier, has undeniable consequences. One such consequence is an imbalance between the increased demands being placed on higher education and the capacity of institutions to meet those demands exacerbated by a decrease in political and economic support from the state. It can be argued that the adoption of 'higher education as industry' approach prioritizing efficiency provides short-term strategies to deal with this imbalance while risking the long-term legitimacy and functioning of higher education as a public institution.

A second important implication of globalization is that institutions and even governments can no longer offer independent answers to societal challenges without policy inference. As a result, it is arguable that the very notion of academic autonomy is being challenged.

Although globalization has an international impact, Marginson & Van der Wende (2006) argue that it is not experienced as a single, universal or homogenous phenomenon across all higher education systems or universities. Its impact is, instead, nuanced and dependent on the specificities of locality (local area, nation, world region), language(s) of use, and academic cultures and it plays out very differently according to the type of institution (*ibid*:4). Despite the nuanced experiences of globalization, universities cannot completely separate themselves from global effects, due to the fact that they are forced to operate within a networked global environment, which exposes them to each other. Higher education institutions are not only objects of globalization they are also agents influencing the global world (Scott, 1998). Research-intensive universities tend to be most implicated in globalization, as they are intensively linked within and between global cities where the major nodes of a networked world are constituted (Castells, 2001). An attempt made by research-intensive universities to downplay global connectivity puts them at risk of reducing their effectiveness (Marginson & Van der Wende, 2006:5).

The influence of globalization necessitates knowledge production, which requires complex data transfer enabled by a range of information and communications technologies (ICTs). In the process of this happening, new relations to power and inequality are drawn that include some universities and excludes others from the international networks related to knowledge production and dissemination. Communication and information sharing draw on economic

and cultural aspects that become the dividing line in shaping relations of power and inequality (Castells, 2000; Giddens, 2001 in Marginson & Van der Wende, 2006).

Globalization and the concomitant development of the 'knowledge society' has seen a shift away from universities being the sole custodians of knowledge and knowledge production to a situation where other sectors of society are viewed as legitimate and capable contributors to the increased demands for it. This increase in contexts in which knowledge production occurs is helped by the mobility of academics and the emergence of a highly competitive research arena, which results in a 'brain drain' from the higher education sector into other knowledge producing organizations in corporate or government structures (Van Damme, 2001).

The influence of the increased demand for more 'Mode 2' (Gibbons, 1994) oriented research, as well the strategic importance placed by the corporate and government sectors on research outside of the natural sciences (Van Damme, 2001) introduces tensions to higher education. As it becomes apparent that other organizations external to the universities can contribute and produce knowledge that is valued, universities begin to feel the pressure to compete with these other organisations for resources in order to keep abreast of developments in knowledge production.

Decisions to pursue these resources can be marred by tensions. Often the difference between a university and a center specifically set up for research purposes is that the research center very seldom has additional mandates that compete with the research endeavor. Universities, on the other hand, have more than one core responsibility and tensions arise in an attempt to balance teaching and learning, research and community engagement whilst, at the same time, meeting other demands.

The negotiation of all this means that globalization is experienced in local and nuanced ways at institutional levels.

4.2.1.1 The impact of globalization on South African higher education

As I have indicated in the section above, the impact of the various challenges related to globalization on higher education policy and higher education institutions is mediated by location. From the early 1990s onwards, South Africa was forced to confront the need to work with processes related to democratization and globalization processes *simultaneously* (Kraak, 2001).

As Kraak (*ibid*) points out, it is not difficult to understand why developments derived from a global agenda were accepted with little or no opposition from South African stakeholders,

given that they were congruent with the national agenda of redressing the effects of apartheid in all sectors of South African society. In the South African context, the many discourses associated with globalization were seen to offer promise in meeting the extensive needs facing the country⁸ (*ibid*).

From the early 1990s onwards, then, South African policy makers had to hold two demands in tension: the need for the country to become competitive within a globalised economy as well as the need to attend to local needs related to equity (Moya, 2004). In order for the country to be globally competitive, attending to education was a priority, given that the educational needs of the majority of the population had been systematically denied under apartheid.

As a result, the ‘transformation’ of education and, in the context of the ‘high skills thesis’ (Finegold & Soskice, 1998), of higher education in particular became a priority as the following statement in the 1997 White Paper on Higher Education (DoE, 1997:7), aptly subtitled *A programme for the transformation of higher education*, shows:

South Africa’s transition from apartheid and minority rule to democracy requires that all existing practices, institutions and values are viewed anew and rethought in terms of their fitness for the new era. Higher education plays a central role in the social, cultural and economic development of modern societies. In South Africa today, the challenge is to redress past inequalities and to transform the higher education system to serve a new social order, to meeting pressing national needs, and to respond to new realities and opportunities.

Moja (2004:21) contends that policy-making processes thus had to contend with global pressures related to the need for human resource development, high-level skills training, knowledge production, acquisition and application as well as the pressure to establish a new social order.

In the higher education context, South African universities were pressured to forge a new social contract between the higher education sector, government and society at large (Hlengwa, 2010a). This new social contract called for a change in the manner in which the

⁸ Kraak (*ibid*) points out, for example, that the acceptance of the ‘high skills thesis’ (Finegold & Soskice, 1988) was fostered by the realization, on the part of the Congress of South African Trade Unions (COSATU), that a failure to deal with the need for production to focus on the adding of value to existing goods would only result in even higher levels of unemployment most manifest in black social groups.

core academic responsibilities of knowledge production (research), knowledge dissemination (teaching) and the application of knowledge (community engagement) were shaped.

Early education policy arguably focused more on the efficiency agenda than on other demands. The South African Qualifications Act (Act 85 of 1995), for example, established the South African Qualifications Authority (SAQA) to which responsibility for the development of a National Qualifications Framework (NQF) was allocated. The NQF was seen as a means of promoting education by providing a number of pathways by which learners could ascend a ‘ladder’ of qualifications. Arguably this aim of widening the pathways can be seen as a way in which the NQF could ‘address issues of equity and social justice’ (Ensor, 2003: 325) thus embracing a wider agenda than that of efficiency. The construct of the learning outcome was as an organising principle for the framework because of its potential to describe qualifications.

The use of the learning outcome in the framework was then associated with other developments such as the introduction of Outcomes Based Education (OBE) to all levels of education. Since learning outcomes focus on what learners should be able to *do* as the result of following a programme of study, vocational education was effectively promoted.

Critiques of the promotion of *Horizontal discourse* at the expense of *Vertical discourse* (Bernstein, 2000) soon followed (see, for example, Jansen & Christie, 1999) soon but the point here is not to explore this move in South African education but rather to note the privileging of efficiency over other demands in shifts towards education in which proficiency was not only locked within the disciplines.

Singh (2001) responded to what was happening in higher education with an argument for the ‘re-insertion of the public good’ in public higher education, a process that would require inquiry into ‘the ways in which the core activities of higher education (teaching, research and community service) could yield public good benefits’ (*ibid*: 9).

Barnett (2000a: 32) notes that:

The re-insertion of ‘public good’ into higher education discourse speaks to purpose of university discourse whereby universities are required to engage with wider society and to contribute intellectual capital in ever wider forms.

The contradiction, experienced in South Africa, between the need to compete globally as well as to respond to local demands is common to developing countries where knowledge is needed in order to carve out ‘niche areas of innovation within the competitive global area while meeting the development needs of the majority of their increasingly marginalized and impoverished populations’ (Muller & Subotzky, 2001:163). This has obvious implications

for higher education. Apartheid policies required radical overhaul after the change-over to a democratic dispensation in 1994 in order to democratise education whilst, at the same time, allowing it to engage with the challenges of globalisation.

4.2.2 Democratization

Democratization is linked to the much-discussed ‘massification’ of higher education. These concepts encapsulate the change from the traditional liberal discourse focused on individual rights, entitlements and education of elites with little regard for the common good (Imenda, 2006) to a discourse of broadened access and higher education as a ‘public good’ (Singh, 2001).

Democratization is associated with ideas of ‘justice, citizenship and community’ (Barnett, 2000a: 50), which have resulted in agendas intended to further human rights and equal opportunities on university campuses. As I have already pointed out, however, there is another sense in which the term ‘democratisation’ is applied to higher education - the sense related to massification. Worldwide, the demand for higher education has increased, fuelled by economic development, modernization and demographic pressure (Van Damme, 2001). As a result, the idea that higher education should be extended to the masses, and not simply reserved for the elite, has become dominant. In developed countries, participation of the 18 – 24 year old cohort now often exceeds 50% although in South Africa, figures are nowhere near this⁹.

As a result of democratization, student numbers have grown and the student body has changed from being a homogeneous group of students drawn from elite social classes to being significantly more heterogeneous (Scott, 1997, see also Leteska & Maile, 2008). The extent to which higher education will ever be equally open to all is, however, questioned by work such as that of Bernstein (2000) discussed in Chapter Three.

In the South African context, democratization has a particular meaning given the apartheid ideology that guided the provision of education from 1948-1994. From 1994 onwards, student demographics have become markedly less homogenous following international trends in higher education. As higher education globally has widened access to students from diverse socio-economic backgrounds, the number of working class students has increased. In South Africa socio-economic status is closely linked to race categories. An increase in the number

⁹ Participation rates currently hover around 16% - 17%.

of black students in higher education is therefore indicative of more working class participation. Later in this chapter, my discussion will focus more explicitly on an exploration of the impact of democratization on South African higher education. For now, however, I want to illustrate how ‘democratisation’ furthered the aim of higher education as a context intent on developing critical citizenry, aided by an increase in the number of students who are able to benefit from the learning experiences it offers.

Democratisation did not feature prominently in higher education until after the Second World War (Englund, 2002: 282)¹⁰. An emphasis on the democratisation in higher education not only profits students’ sense of citizenship but, at a systemic level, is an indication of a nation’s capacity to participate in national and international culture (Englund, 2002). Higher education aspires to make a valuable contribution to citizenship. As Nussbaum (2002: 291) notes:

We construct a higher education that is not simply pre-professional, but a general enrichment of and a cultivation of reasonable, deliberative democratic citizenship. Today’s universities are shaping future citizens in an age of cultural diversity and increasing internationalization. All modern democracies are inescapably plural. As citizens within each nation we are frequently called upon to make decisions that require some understanding of racial and ethnic and religious groups in that nation, and of the situation of its women and its sexual minorities.

In arguing for the ‘re-insertion of public good’ and ‘education for citizenship’, Singh (2001) and Nussbaum (2002) both acknowledge and warn against the pervasive pressure for higher education to adopt a narrowed discourse of social and economic responsiveness. The assertion in their argument is that a counter to the global marketization of higher education would be the adoption of the concepts of education for citizenship and the re-insertion of public good as central concerns articulated in university curricula. As a result, higher education could then be expected to:

... produce adults who can function as citizens not just of some local region or group but also, and more importantly, as citizens of a complex interlocking world and

¹⁰ It was also in this era that tensions between the different aims of higher education begin to surface. Most notable was the pressure for higher education to produce graduates for the labour market who are also equipped for the challenges of global citizenship (Englund, 2002; Nussbaum, 2002).

function with a richness of human understanding and aspiration that cannot be supplied by economic connections alone (Nussbaum, 2002:292).

Higher education's contribution in democratic nations is to educate for critical citizenship. If deliberative democracy is to be fully realised, the emphasis must be on citizens' thinking for themselves rather than being over-reliant on, or deferring reason and choices, to authority (Nussbaum, 2002). Given South Africa's apartheid history it is then not surprising that democratization of higher education is an imperative, recognising the impact it can have at a systemic level especially for a country with a young culture of democratic ideals.

4.2.2.1 The impact of democratization on South African higher education

Given the ravages of apartheid, the democratic government elected 1994 faced the need to make national reconciliation a priority. As Kraak (2001:85) notes:

The call for reconciliation sought to forge unity and common agreement on what constituted the central tasks of social reconstruction and transformation.

In the early 1990s, therefore, concepts such as equity, access and redress featured prominently in policy discourse. Apartheid policies had ensured that South African higher education was fractured along the lines of language, race, and geographical location (Bozalek & Boughey, 2012). Institutions intended for white social groups were well resourced and located in urban areas offering a wide array of programmes with English and Afrikaans used as languages of learning and teaching. The vast majority of black students, however, were only able to access poorly resourced institutions located on the fringes or urban areas or in the deeply rural 'homelands'¹¹ offering a reduced range of programmes which would lead to employment in professions deemed appropriate for an 'underclass'. The challenge then was to develop a single, coherent education that would offer the same opportunities to all.

Early policy work related to higher education, including the work of the National Education Policy Initiative (NEPI), a nominal alliance of the African National Congress (ANC), COSATU and progressive educators, quickly identified expansion of access as a means of achieving equity (Kraak, 2001). As Morrow (1994) was quick to point out, however, formal access, in the sense of allowing a student to occupy a place at a university, was not the same as 'epistemological' access, or access to the ways of knowing which sustain the academy. Without epistemological access, Morrow (ibid) argued, formal access was meaningless.

¹¹ 'Homelands' were independent states established for different tribal groups.

Many working within the South African Academic Development movement, a body which had been charged with working with the phenomenon of structural ‘disadvantage’ resulting from apartheid from the early 1980s onwards, were quick to point out that curriculum change was central to the achievement of epistemological access and thus to the achievement of equity via massification (Boughey, 2007a) discourse at the expense of vertical discourse in contemporary curricula occasioned by a discourse of ‘use’ knowledge. Arguably their critiques are much stronger than those presented by the likes of Naidoo & Jamieson (*ibid*) because of the potential to deny learners access to the powerful knowledge which will allow them to take part in ‘society’s conversation’ about itself (see Chapter Three).

4.2.4 The university in context

Contributing to social and cultural development has long been a feature of higher education institutions. According to Chatterton & Goddard (2000), the reconfiguration of higher education discussed in this chapter requires attention to be paid to ‘regional’ engagement. Since their concept of ‘regional’ engagement is closely aligned to what I understand as the principles of community engagement, I substitute community engagement for regional engagement in the discussion that follows.

Chatterton and Goddard argue for the full integration of community engagement with mainstream teaching and research, as they see community engagement ‘as a key asset and powerhouse of economic development’ (2000:475).

Conceptualizing community engagement as an ‘asset’ for economic development can be seen as limiting. Rather any conceptualisation of community engagement needs to encompass the ideals of ‘education for the public good’ and ‘education for citizenship’. An inclusion of these ideals counters the construction of community engagement as purely encompassing ‘use value’ and, thus, to limited understandings of the university as an institution which is ‘of society’.

4.3 Curriculum reform in South Africa

The developments I have discussed thus far in this chapter clearly have enormous implications for curriculum reform.

Habermas’ notion that ‘knowledge is historically and socially rooted and interest bound’ (Ewert, 1991:347) is the basis from which Grundy (1987) identifies three curriculum paradigms: curriculum as product, curriculum as practice and curriculum as praxis.

Each orientation is derived from the Habermasian (1972) notion of ‘knowledge constitutive interests’. As Grundy (*ibid*: 10) cites Richard Bernstein (1979:192) in noting that ‘... such interests or orientations are *knowledge constitutive* because they *shape and determine* what counts as the objects and types of knowledge’ (Grundy’s emphasis).

Interests are thus elements of the structure of knowledge itself. Habermas (*ibid*) identifies three interests: the ‘technical’ interest, the ‘practical’ interest and the ‘emancipatory’ interest that correspond to three ‘ways of knowing’. The technical interest corresponds to the empirical-analytical sciences, the practical to the historical-hermeneutic and the emancipatory to what can broadly be termed ‘criticality’ or an interest in social justice (Carspecken, 1989).

Grundy’s (*ibid*) first paradigm, curriculum as product, has its basis in Habermas’ technical interest. The technical interest aims to make predictions that can be used to control the natural environment and is thus associated with positivism. Since the technical interest is in controlling the environment, it gives rise to ‘instrumental action’ governed by ‘technical rules based upon empirical knowledge’ (Habermas, 1971: 91 in Grundy, 1987:12).

The implications of the technical interest for curriculum is that the curriculum is constructed as given and its transmission is aimed at the development of ‘correct’ action defined as ‘rule following’ (Grundy, 1987:62). Teaching and learning outcomes are therefore set and the extent to which they are met is measured (Knight, 2001). This type of curriculum not only fails to take into account the social contexts in which the curriculum is employed but also the fact much higher learning involves:

... unending disputes, subtle concepts and large amounts of information to be organized and remembered, and the emerging understandings of the nature or structure of the subject area itself (Knight, 2001:369).

In the context of my discussion of hierarchical knowledge structures in vertical discourse (see Chapter Three), however, the notion of curriculum as product can be seen to be aligned with the transmission of principles and theories at the base of the knowledge structure. In spite of this, Knight (*ibid*) insists that the sort of rational curriculum planning associated with a ‘curriculum as product’ approach goes against the complex learning that is required in which novices are inducted into the complex ways of disciplinary thinking.

The second of Grundy’s paradigms, curriculum as practice, is based in Habermas’ (1971) ‘practical’ interest and is thus associated with the historical-hermeneutic sciences. The practical interest is focused not on control but rather on an understanding of the environment that will allow interaction with it. In this respect, the practical interest is concerned with the human need to be in and part of the world rather than in control of the world. The aim in the

practical paradigm is to strive, through curriculum, towards combining “knowledge, judgment and taste to produce discernment which is more than a skill” (Grundy, 1987:61). Judgments in this paradigm lead to ‘good’ as opposed to ‘correct’ action as foregrounded in technical paradigm (*ibid*).

Although the construct of ‘curriculum as practice’ requires consideration of the outcomes of learning, the ways in which curriculum plans play out are dependent the teaching and learning context and may need to be negotiated and changed if necessary (Lockett, 1995).

Curriculum as praxis is Grundy’s (*ibid*) third paradigm. Curriculum as praxis draws on Habermas’ (1971) emancipatory interest. The aim of curricula developed within this paradigm is the development of the critical consciousness that will lead to emancipatory social action.

This approach to curriculum development foregrounds questions about whose interests are serviced by particular teaching and learning modalities and how those are challenged or re-enforced by the inclusion or exclusion of certain knowledges in the curriculum (Lockett, 1995). This paradigm is aligned to the approach to higher education as a social institution (Gumport, 2000) strengthened by systemic arguments for the reinsertion of ‘public good’ (Singh, 2001) and ‘education for citizenship’ (Nussbaum, 2003).

4.3.1 The role of knowledge in the curriculum

In a paper written in the context of on-going debates about curriculum in the United Kingdom, Moore and Young (2001) identify two sets of assumptions about the role of knowledge that are useful to my discussion in this chapter. The first set of assumptions, termed ‘neo-conservative traditionalist’, treat the curriculum as a given body of knowledge that needs to be transmitted. Neo-conservative traditionalist assumptions thus privilege canonical knowledge and resist change. Learning is thus about developing deference to a body of knowledge and ‘submitting to the discipline of a subject and becoming the kind of person it is supposed to make you’ (*ibid*: 447). Significantly, Moore and Young go on to note that the emphasis on the *discipline* of learning does not stem from epistemological concerns but rather ‘by the view that the traditional discipline of learning promotes proper respect for authority and protects traditional values’ (*ibid*).

Moore and Young therefore arrive at the conclusion that in this paradigm ‘curriculum changes are invariably ad hoc and pragmatic’ (*ibid*: 450). It is not difficult to see connections between Grundy’s (1987) ‘curriculum as product’ and Moore and Young’s ‘neo-conservative traditionalist’ paradigm.

In contrast to neo-conservative traditionalist assumptions, what Moore and Young (*ibid*) term ‘technical instrumentalist’ beliefs privilege the idea that the purpose of education is to serve the needs of the economy. This particular set of assumptions has become more prevalent in the context of the idea of a ‘knowledge economy’ fostered by globalisation. While neo-conservative traditionalist assumptions focus on the development of a particular kind of person, technical instrumentalism focuses on the development of a particular kind of society – the making of persons is limited to their ability to be flexible and adaptable in the face of the need for constant change (*ibid*: 448). Although these assumptions initially tended to be limited to vocational education, more recently they have become to be applied to all education, including that provided by the universities. This is certainly the case in South Africa as I have indicated earlier in this chapter.

Moore and Young (*ibid*) point out that what is missing in both sets of assumptions is any serious consideration about the knowledge. Postmodernist critiques of the two sets of assumptions also fall into this trap in that, by arguing for the socially constructed (and therefore relative) nature of knowledge, they focus on whose interests are best represented in which ever knowledge is selected for inclusion in a curriculum rather than on knowledge itself:

... because they have no theory of knowledge as such, they can do little more than expose the way that curriculum policies always mask power relations (*ibid*: 449).

Moore and Young (*ibid*) go on to argue for a ‘social realist’ theory of knowledge, which is derived from the work of Bernstein (1996, 1999, 2000), and is described in Chapter Three.

4.3.1.1 A social realist approach to knowledge

According to Alexander (1995 cited in Moore & Young, 2001:452), the polarization of positivism and postmodern theories of knowledge results in an ‘epistemological dilemma’. Positivism presents knowledge as neutral and severed from the social position and intellectual interest of knower. The postmodernist position, on the other hand, is that the social position and intellectual interests affect knowledge so that it is deemed relative and particular. According to Moore and Young (*ibid*), neither position offers a convincing account of itself. They therefore argue for a social realist approach. This approach acknowledges that knowledge can only be seen to be derived from the historical efforts of agents but that these efforts can be methodically measured and critically evaluated (*ibid*).

In a social realist approach the objectivity of knowledge is validated by the members of long-standing disciplinary communities who use rigorous codes and practices as regulative

measures. Knowledge, and our understanding of knowledge, is not static. However, the regulative measures need to be relatively resistant to change. This is achieved through the role played by cognitive norms and values in disciplines (Moore & Young, 2001). Schmaus (1994:263) cited in Moore and Young (2001:455) describes cognitive norms and values in the following way:

Cognitive values may include everything from a scientist's position regarding the ontological status of unobservable entities to the desire to solve a specific set of problems or to explain a particular set of facts. Cognitive norms may range from rules governing the forms of persuasive argument that can be brought in defense of one's theory in a journal article to procedures for manipulating "inscriptions devices" in the laboratory.

The social realist approach to knowledge has implications for the curriculum that will be elaborated in the following section.

4.3.2 Knowledge in South African curriculum reform

Arguments for the need for curriculum reform in South Africa have already been noted. In spite of the existence of these arguments, initiated originally in the Academic Development movement (Boughey, 2007, 2013) and taken up in policy documents including the 1997 White Paper on Higher Education (DoE, 1997, most of the work on curriculum development in higher education has focused on the use of learning outcomes as an organising principle in curriculum design (Boughey & McKenna, forthcoming). This can be attributed to a distinction made between qualifications and programmes. Qualifications are required to be registered National Qualifications Framework using the notion of the learning outcome as a descriptive language. As a result, qualifications are described in terms of the 'Exit Level Outcomes' – or things that learners must be able to do to achieve the qualification. Programmes then provide a series of learning experiences designed to allow learners to achieve these outcomes. In designing learning programmes, Biggs' (2001) notion of 'constructive alignment' is often used in order to ensure that the programme is 'fit for purpose' in allowing learners to meet the outcomes.

Also significant in South Africa has been the work of Gibbons *et al.* (1994) on Mode 2 knowledge discussed earlier in this chapter. Arguably this is because of the development of the university of technology as a particular institutional type in the early 2000s. Universities of technology largely include the notions of 'applied knowledge' and 'applied learning' in their missions (Boughey, 2010) and Mode 2 is useful in this respect.

Despite the enthusiasm with which both the introduction of the learning outcome and the foregrounding of Mode 2 knowledge have been received in many circles, a number of serious critiques of both developments have been produced.

Muller (2000), for example, argues that a shift towards Mode 2 knowledge would weaken an already impoverished education system by continuing to deny some learners access to the powerful knowledge of vertical discourse. This critique has been taken up in other countries including, most notably, by Wheelahan (2007b) in a response to the emphasis on vocational education in Australia. In a nutshell, these critiques focus on the idea that curricula which emphasise skills and understipulate content and progression – particularly in relation to hierarchical knowledge structures (see Chapter Three) – disadvantage learners by restricting their access to the powerful knowledge which will allow them to move across contexts.

Muller (2000) argues that gross inequalities in South African society resulting from apartheid motivated the decision to endorse what he terms a ‘political’ curriculum rather than a pedagogically sound curriculum which would ensure that access to vertical discourse was more evenly distributed.

The gross inequalities in South African society motivated the decision to endorse a political rather a pedagogically reasoned curriculum policy, believed to safeguard against providing an education system that could potentially produce inequality by offering an education experience that is better for some than for others (Muller, 2000:73). Furthering this argument, Lockett (2001) discusses the critical role of Mode 1 knowledge – or traditional disciplinary knowledge – in providing a strong grounding in all higher education. She notes that ‘high quality Mode 2 knowledge production depends on its researcher being able to draw on sound multiple, disciplinary foundations’ (*ibid*:51), an observation which points to the idea that Mode 2 cannot exist without Mode 1. Barnett & Coates (2005) also argue for curricula that pay attention to three areas: ‘knowledge, action and being’. In Barnett & Coates’ schema, ‘knowledge’ refers to discipline-specific competence’, and ‘action’ to disciplinary practices. The domain of ‘self’ then refers to the identity developed by students

... in relation to the subject areas, for example history students learn to perceive themselves as ‘critical evaluators’ while nurses are encouraged to become ‘reflective practitioners’ (Barnett, Parry & Coates, 2001:438-439).

Writing about the South African context, Lockett (2001) proposes a similar kind of curriculum and pedagogy to that suggested by Barnett & Coates (2005). She argues for an ‘epistemically diverse’ curriculum comprised of the following four areas: i) knowledge of the propositional content of the disciplines ii) the application of disciplinary knowledge in order to develop practical competence, iii) the knowledge of self which results from reflection and,

finally, iv) the metacognitive knowledge needed to think epistemically, contextually and systematically (*ibid*: 55).

The importance of reflexivity in developing the kind of subjectivity required to thrive in a rapidly changing world is emphasized by Luckett (2001) as well as Barnett & Coates (2005). Luckett (*ibid*:53) further argues that it is only reflexivity which will save higher education from offering instrumental curricula in which knowledge is only valued for its market value. Barnett (2004) emphasizes the need for curricula that develop the critical capacity, which will allow graduates to cope with the manufactured risks of the world of ‘supercomplexity’ they need to engage in.

The discussion thus far may create the impression that curriculum receives attention in South African policy documents related to higher education. However, Ensor (2004) draws attention to the fact that, although South African policy documents *do* pay attention to curriculum, unfortunately messages regarding curriculum have been contradictory leaving them open to multiple interpretations. Luckett (2001) is in agreement, pointing out that what is missing are serious and sustained deliberations on the nature of the curriculum required to prepare graduates for the 21st century (see also CHE, 1999).

4.3.3 Institutional responses to curriculum reform

Policy and other external demands require a response from institutions of higher education. According to Ensor (2000, 2004), the nature of this response is dependent on the position of an institution in a higher education system (see also, Moore, 2002, 2004). Institutions occupying secure niches in a higher education system tend to comply with demands in a limited way. In South Africa, this privileged status remains largely reserved for the historically white and, more specifically, English medium institutions. Due to a more independent relationship between these institutions and the state garnered during the years of apartheid, decision-making processes are influenced less by pragmatic reasoning and more by institutional cultures encompassing particular understandings of academic freedom.

According to Moore (2004), institutions have varying degrees of susceptibility to external demands along a continuum from those that have cultivated the most resistance to those who seem to offer least resistance. He contends that an institution’s relation to knowledge is a crucial and deciding factor in resisting external pressures such as a drop in student numbers, which can render an institution vulnerable to the external demands.

Universities that continue to generate new knowledge cement and secure their niche areas experience less pressure to comply with external demands (Moore, 2002, 2004). In South

Africa, for example, Rhodes University was able to resist pressures to rearticulate in order to introduce modularized vocationally based programmes in the early 2000s. In order to do this, the University drew on a strong institutional culture that provided enabling discourses of excellence, high student success rates and high research output as examples of a strong relation to knowledge.

Continuing with Moore's (2004) argument, institutions that have not been successful in their relation to knowledge and thus have lower status comply more readily with the external demands. In South Africa, the new universities of technology that resulted from older institutions termed 'technikons' would fit into this category. The old technikons had never developed a great deal of research capacity and this has impacted on their ability to function as universities following their shift in status.

In relation to service-learning therefore, it would seem that institutional capacity to resist calls for more engaged learning is impacted by their status and particularly by their relationship to knowledge.

4.4 Conclusion

Curricula in the 21st century face the dual challenge of needing to meet the demands of ever-changing contexts while upholding traditional discipline codes and norms. Moore and Young (2001) argue for the usefulness of social realist understandings of knowledge in enabling universities to develop such curricula. Only the development of the powerful knowledges of vertical discourse, they argue, will allow learners to transcend the narrow specifications of learning outcomes.

Chapter Five: Research Design

5.1 Introduction

This chapter begins by outlining, once again, the ontological and epistemological assumptions framing my study (see 2.3 & 2.4) before moving on to show how these informed my research design. I begin by justifying my use of case studies before moving on to look at their impact on research decisions and my choice of methods and modes of analysis. I conclude the chapter with a brief examination of issues pertaining to validity and ethics.

5.2 Ontology, epistemology and methodology

Research from a critical realist's orientation is underpinned by the understanding that human action is made possible by reasons supporting those actions. In turn, the reasons are preceded by intentions, which may be accompanied by reflection.

Actions are framed by particular social contexts, which generate a shared meaning for actors and observers within the context (Collier, 1998). In the context of my study, curriculum decisions in relation to service-learning infusion possibilities embody actions, intentions and reflections. Collier outlines these as aspects of a 'critical' orientation to knowledge. An important focus of research located in a critical orientation is the acknowledgement of 'the potential for understandings of human action to be distorted' (Collier, 1998:20). It is this consideration that prompts my use Roy Bhaskar's (1998) critical realist ontology as a meta-theory (see Chapter Two).

In critical realist research, an important undertaking is to come to an understanding of the causal mechanisms at the intransitive level of the Real from which emerge events and experiences at the levels of the Actual and the Empirical. As I have already indicated, the levels of the Actual and the Empirical constitute the transitive domain. Critical realist philosophy argues that what is observed and experienced in social interactions in the transitive domain is the result of structures and mechanisms which exist at deeper ontological layers at the intransitive level which may or may not be operational at any given time (Bhaskar, 1998). My task was therefore to attain knowledge of:

... constitutive qualities and causal mechanisms generating events, but also knowledge of how different mechanisms co-operate and, under specific

circumstances contribute to the production of concrete events and processes (Danermark *et al.*, 2002:108).

In order to explore the transitive, Margaret Archer's (1995a) concept of 'analytical dualism' was used in addition to substantive theories focusing on the work of Basil Bernstein (1975, 1996, 2000).

Qualitative research draws a distinction between methodology and the method employed (Henning *et al.*, 2004). According to Danermark *et al.* (2002:73), methodology is 'the borderline between on the one hand the philosophy of science, and on the other hand the critical methods or working procedures used in specific studies.

Methodology involves the achievement of coherence by applying methods that complement each other so as to produce data and findings that match the purpose of the research and answer the research questions (Henning *et al.*, 2004:36). While 'method denotes a way of doing something (one thing)' (Henning *et al.*, 2004:36), the relationship between the meta-theory and methodology determines what befits a particular research context. Therefore critical realist research is not restricted to one particular method in order to achieve ontological, epistemological and methodological coherence, thus allowing for 'critical methodological pluralism' (Danermark *et al.*, 2004:152).

Maxwell (2004a,b) credits two developments that heightened the explanatory power of qualitative research. Firstly, realist philosophy shifted the perception of qualitative research as limited in as far as being able to offer rigorous causal explanations. Positivist and constructivist philosophies associate causation with observed regularities. This is challenged by realist philosophy which conceptualises causation 'as fundamentally a matter of process and mechanisms rather than observed regularities' (Maxwell, 2004b:246). The other development advancing the acceptance of the explanatory power of qualitative research involved acknowledging the difference in orientation between explanations provided by variance-oriented research and process-oriented research.

Variance-oriented research focuses on the contribution that differences and correlation among values can offer analytically (Maxwell, 2004a: 248). Process-oriented research, on the other hand, 'lends itself to in-depth study of one or a few cases' focused on contextual and chronological connections between events and processes that connect them (Maxwell, 2004a).

According to Maxwell (2004a: 247), the realist view of causation demonstrates compatibility with a number of characteristics associated with qualitative research that have bearing on this thesis. Qualitative research, for example, emphasises the importance of 'directly observing and interpreting social and psychological processes'. This concurs with the realist view that

causal processes are not restricted to inferences and measurable co-variations, but rather that some causal processes can be directly observed. If it is the case that some causal processes can be directly observed, then this affirms the potential for case studies to provide causal explanations, because single cases are not reliant on the ‘comparison of situation in which the presumed case is present or absent’ (Maxwell, 2004a).

In addition, qualitative researchers assert the explanatory value of context, elevating context from a simplified notion of ‘extraneous variables’. This is congruent with realists’ assertion that context is an intrinsic part of the causal process. The realist affirmation of ‘mental events and phenomena’ as causes of behaviour, concurs with qualitative researchers’ emphasis on participants’ interpretation of social phenomena (*ibid*). Lastly, qualitative researchers use various inductive design methods, legitimised by that realist assertion that causal explanation does not ‘inherently depend on pre-established comparisons’ (*ibid*).

The causal powers of structures and mechanisms in the domains of Structure, Culture and Agency in the research context became observable through interviews I conducted with the participants as well through my analysis of the curriculum documentation. These, in turn, both provided insights into structures and mechanisms at play in contexts beyond the different Departments and Rhodes University, which influence the emergence of service-learning as a pedagogical tool.

Throughout the thesis I have pursued alignment between ontology, epistemology and methodology through attempts to remain conscious of critical realist meta-theory at all times.

In a realist framework, concepts and theories translate to abstract explanations of entities that exist in the intransitive realm. The intransitive realm is at the level of the Real. Structure, culture and agency, by virtue of their existence at this level, thus become more than concepts – they are *real* (Archer, 1998a). This was important given that my study aims at identifying the structural and cultural conditions contributing to the emergence of service-learning. I was thus attempted to identify the reality of emergence.

Regulative principles or orientations for research are provided implicitly or explicitly by theories and concepts and assist us from falling into the trap of treating data as ‘given things’ (Sayer, 1992). Kellner (in Danermark *et al.*, 2002: 42) asserts that theories and concepts are valuable because of their potential to

... help us to see, operate, and get around specific social fields, pointing to salient phenomena, making connections, interpreting and criticising, and perhaps explaining and predicting specific states of affairs.

In my study, I was thus conscious of the use of both meta-theory and substantive theory to explain. In this respect, I constantly ‘tested’ the data against the various theories I was using in order to achieve what I understood as the best explanation. As Maxwell (2004a) points out, through identifying appropriate evidence the theory may be supported or disputed, opening opportunities for alternative theories to be used.

Research within an open system is challenged by the fact that the objects of study are not constant, thus making knowledge attainment about social processes difficult. In order to understand and explain the social events experienced by the participants, the researcher has to develop her own meaning based on the meanings and interpretations accounted by participants involved in the study or those operating within the context. This complication was termed by Giddens (1984) the ‘double hermeneutic’. Sayer (1992) contends that objects are concept-dependent and therefore agents (including the researcher) attach meaning to objects. The onus is on the researcher to understand the meanings associated with objects so as to develop an understanding of the social world. It was therefore critical that I should elicit the meanings that the research participants attributed to structures, mechanisms and persons as well as pay marked attention to my own attachment of meaning to them and the processes they were involved in.

My ontological position postulates a reality with a deep structure knowable through examining the interplay of structures and mechanisms in the domains of Structure, Culture and Agency. This ontological position is compatible with my methodological framework of explaining the processes and their underlying mechanisms.

Qualitative research has the ability to go beyond association by providing an in-depth analysis of the complex network of events and processes within a context (Miles & Huberman, 1994). Flyvbjerg (2004) accents the value of causal explanations that delve deeper into a problem rather than to merely offering symptomatic descriptions of the problem. Case study research is well suited to in-depth investigations of complex contexts such a university. The following section discusses the merits and purposes of case study research thus illustrating the appropriateness of the approach for the thesis.

5.3 Case study research

I mentioned in Chapter One that the aim of my study is to understand the underlying mechanisms informing decisions regarding the infusion of service-learning in curricula. The thesis therefore has the potential to explain where the possibilities exist for the infusion of service-learning in the disciplines offered at Rhodes University.

Case study research is:

... distinguished from other types of qualitative research in that [cases] are intensive descriptions and analyses of a single unit or bounded system (Smith, 1978) such as an individual, a program, event, group, intervention or community (Merriam, 1999:19 in Henning *et al.*, 2004:41).

According to Yin (1993), case study is appropriate 'when investigating both a particular phenomenon and the context within which the phenomenon is occurring' (Yin, 1993:31). Given my use of critical and social realist theory, the phenomena in this study are the structures and mechanisms enabling and constraining the infusion of service-learning in curricula in the context of a higher education institution.

Qualitative research texts emphasise the importance of context in case study research with Henning *et al.* (2004:41) noting that 'it is the interaction between context and action that is usually the unit of analysis' (Henning *et al.*, 2004: 41). In critical realism, causal explanations rely on the 'exploration of how the context is structured and how the key agents under study fit into it' (Sayer, 1992:248). In Chapter Six, I provide an analysis of the wider higher education context and use this to inform my analysis of the four cases that follow in Chapters Seven, Eight, Nine and Ten.

Both Stake (1995) and Yin (2003) identify different types of case studies. I would argue that my study draws on several of these types. For example, Stake (1995) defines an 'intrinsic' case as one that genuinely interests the researcher and where the study is not undertaken because the case is understood to be representative of other cases or because it is indicative of a particular trait of problem. Rather, the case is chosen because of its ordinariness and is of interest because of this. As a practitioner appointed in the Centre for Higher Education Research, Teaching and Learning with special responsibility for supporting staff in the area of service-learning, I was genuinely interested in instances of service-learning at Rhodes University. Although I deliberately tried to identify disciplinary types using Biglan's (1973a,b) typology, my focus was on exploring the interest of each particular case and not in trying to argue that that it was indicative of all other cases fitting the typological description. In addition, I was trying to identify structures and mechanisms other than disciplinary types impacting on emergence in each case.

In addition, Stake (1995) defines an instrumental case study as one that is used to accomplish something other than simply understanding a single situation. In my study, my aim was to come to an understanding of the systemic conditions on how, why, where and when service-

learning is infused into curricula. I did this by looking across all cases in order to achieve a 'cross-case' analysis presented as the final chapter of this thesis. My aim ultimately was to draw on this cross-case analysis in my own work promoting service-learning at Rhodes University.

An important feature of social science research is choosing a case consciously so as to contribute to the potential of generalising from such a case (Yin, 2003). Although it is not possible to induce formal generalisations from particular cases, it is possible for cases to contribute to knowledge within a particular field. This possibility is realised by readers identifying elements of the case that have implications for their own contexts. In this way, naturalistic generalisations can be made (Arksey & Knight, 1999).

Theoretical conclusions drawn from my research maybe applicable to other contexts, Maxwell terms this 'analytical generalisability' (2005). In Chapter One, I indicated what I understood as the shortcomings of a lot of extant research on service-learning. Through my use of a critical realist ontology and Archer's analytical dualism along with other substantive theory (most notably the work of Bernstein 1975, 1996, 2000) I hope to develop conclusions which are theoretically informed and which thus have the potential to assist others in understanding service-learning in their own contexts in different ways.

5.4 Research decisions

In keeping with realist tradition, this study employs methodological pluralism (Danermark *et al.*, 2002; Carter and New, 2004). The range of methods involved assists in identifying the causal mechanisms which impact on the infusion of service-learning in curricula (Archer *et al.*, 1998a). Maxwell (2004b) emphasises the importance of compiling 'rich description' in which the complexities of the case are examined. I attempted to gather the data which would allow me to develop such rich description by arranging formal meetings with Heads of Departments in order to gain access into the Department as well as to identify appropriate interviewees, by conducting semi-structured interviews, by analysing documents and by keeping a reflective research journal of what I observed.

Rhodes University was chosen as a case as it is one of the few traditional universities in South Africa that has held fast to disciplines as organisational structures. As I have indicated, at many other universities in the country, discipline-based departments were reorganised into schools as vocationally-based programmes were developed. The choice of Rhodes University as a site for my study was important given my interest in the potential for the structure of the discipline to impact on the infusion of service-learning. In addition, I was influenced by the

fact that this the institution at which I am employed and that it was thus easier for me to access data for my study.

Rhodes University has a relatively small student intake making it the smallest publicly funded institution in the country. Student enrolment at the University is about 6,500. The academic staff compliment of about 330 is spread over six Faculties in 39 Departments. Fyrbjerg (2001) points out that, despite small numbers, judgments of typicality can be justified. Although Rhodes University's size does not match that of other South African institutions, I am of the opinion that the detailed account of the context I provide along with my careful excavation of causal powers and properties will allow researchers in other contexts to make judgements regarding typicality.

According to Henning *et al.* (2004) it is crucial for researchers to be explicit and reflexive about biases and aims if trustworthiness is to be enhanced. I was thus very aware that I was the primary source of data because of my role in conducting interviews, analysing documents and meaning throughout the research process (Alvesson & Skoldber in Henning *et al.*, 2004).

I collected data over a two-year period (2008-2010), with the exception of my research and reading journals that commenced in 2007. Initially I used the research journal merely to keep a record of my interactions with colleagues relating to the use of service-learning as a pedagogic tool. As a result of using a reading journal, I noticed the lack of balance in disciplines in which instances of service-learning were reported in the literature. This imbalance correlated with entries in the research journal where my interactions with individuals and Departments using service-learning were recorded.

The imbalance was sufficiently intriguing for me to use a survey conducted under the auspices of the Office of the Deputy Vice Chancellor (DVC), Academic and Student Affairs, in preparation for a Service-learning Symposium held at the University in 2008. As a member of the committee organising the symposium, I was responsible for designing the survey and collating information from it. The survey required academic departments to indicate participation in community engagement and or service-learning activities (see Appendix I). The survey thus provided me with the means of selecting the cases for my study.

In order to identify the cases, I used Biglan's typology (1973a,b) that broadly categorises disciplines into the categories of 'hard pure', 'hard applied', 'soft pure' and 'soft applied'. I did this because of my interest in the impact of disciplinary structure on the emergence of service-learning. I chose Entomology as an example of a 'hard pure' discipline and Psychology as an example of a 'soft applied' discipline. Both specifically named courses as incorporating service-learning. I then chose Environmental Sciences as an example of a

‘hard applied’ discipline. In the Department of Environmental Science at Rhodes University, it was possible to identify a number of courses using pedagogic tools mirroring service-learning. I then identified Philosophy as a ‘soft pure’ discipline. The Department does not use service-learning although it does offer one community engaged activity. My intention was never only to choose cases where specific instances of service-learning could be identified. It was rather to see how structural and cultural conditions enabled or constrained emergence with the result that it was necessary to consider instances where no service-learning was present.

Biglan’s categories offer insights into disciplinary structures and how these might impact on the infusion of service-learning into curricula. Of equal importance and relevance is Becher and Trowler’s (2001) contribution to understanding academic identities and cultural practice, through linking academic disciplines to academic culture. I was mindful, however, that although the categories identified by Biglan and Becher and Trowler are useful, it is necessary not to allow them to account for all that a discipline encompasses, since to do this would amount to essentialisation (Trowler, 2011).

5.5 Research Methods

5.5.1 Interviewing

Clegg (2005) points to the value of detailed accounts of activity and experiences in higher education derived from strategies such as interviewing:

[Detailed accounts of] practice are important in understanding how changes are mediated through the creativity and resistance of actors on the ground. How we theorise about . . . change in higher education is, therefore, crucially dependent on these sorts of data (2005:151).

Carter and New (2004:6) further this point by noting the importance of coming to an understanding of agency by exploring the ‘material setting and the cultural meaning of a social practice’ (2004:6). Danermark *et al.* (2002:36) observe that people’s opinions, perceptions and common sense notions are a crucial source of data. This is because a critical realist ontology allows one to move from these experiences and observations at the level of the Empirical to the deeper ontological level of the Real in order to identify causal structures and mechanisms.

Wengraf (2001) was influential in guiding my understanding of what is involved in interviewing. I used semi-structured, in-depth interviews, which I conducted with selected

academics within the four departments. Although I designed the questions for the interviews, I was open to responses from the participants that led in other, but related, directions. I deliberately selected specific participants in each of the four departments, using what Maxwell calls 'purposeful selection' defined as 'a strategy in which particular settings, persons, or activities are selected deliberately in order to provide information that can't be gotten as well from other choices' (Maxwell, 2005:88). As I have indicated, Heads of Departments assisted me in identifying interviewees.

Participants in my interviews included the senior academic with sole responsibility for the course involving service-learning in Entomology. For the Environmental Science case, I interviewed a senior researcher who has had strong ties with the Department for some years and who recently joined the staff of Rhodes University. Two participants were interviewed in the Philosophy department: a Master's student co-ordinating the course offered to learners enrolled in a school run by a non-governmental organisation by other students and a senior lecturer whose teaching focus and research interest linked with the course offered and had been appointed by the Department to provide guidance to students running the course. Three participants involved in facilitating the Community Psychology course offered to first year Masters students were interviewed. These were the Head of Department, the Director of the Counselling Centre and the expert Community Psychology Facilitator. All chose pseudonyms for the purpose of the research. Figure 6 summarises the interview participants.

Department	Disciplinary Type	Course	Individual	Role
Zoology & Entomology	'Hard Pure'	Honours level course in Cultural Entomology	Tim	Course co-ordinator
Environmental Science	'Hard Applied'	Third Year course in Environmental Monitoring and Monitoring systems	Mona	Senior Academic in Department
Philosophy	'Soft Pure'	Informal course offered by students to learners in school run by Non Governmental Organization	Peter	Senior Academic appointed primarily for the Accounting Ethics course, also offers guidance to students facilitating at GADRA
			Charlotte	Master's student
Psychology	'Soft Applied'	Course in first year of two-year Master's programme	Riona	Full Professor and former Head of Department
			Hans	Director of Counselling Centre
			Mayte	Expert in community psychology

Figure 6: Interview participants

According to Sayer (1992), theories are ‘examined conceptualisations’ of reality. Concepts refer to entities believed to belong to social reality; theories contain concepts (Archer, 1995). Researchers use terms and frameworks derived from theories for explanatory purposes (Sayer, 1992). My aim was to use concepts pertinent to the purpose of my study in order to analyse the interview data so as to provide relevant causal processes to explain my case.

When I designed the interview questions I followed Wengraf’s (2001) suggested model of maintaining a clear link between my research purposes, theory questions and interview questions. Following this model was my attempt at avoiding what Wengraf sees as problematic in social science research – the threat of expressing concepts as ‘theory-language’ which often obscures indicators, making them less obvious (2001:53).

Questions were thus formulated around central concepts in my theoretical framework (structure, culture, agency). The interview questions were in a style and language that accommodated the fact that, although my participants were all involved in the academic project, not all had disciplinary backgrounds that are cognate to my own discipline of Education. I therefore aimed for language that would not alienate colleagues without expertise in the field of higher education studies. I was also conscious of the need to avoid biased and leading questions that thereby prompted participants to impart answers lending themselves to what I was searching for (Wengraf, 2001).

In order to link the theory to empirical indicators, interpretation is required so as to avoid the fallacy of assuming an automatic correlation between what is presented in the data and the actual world, which would render the analysis variably naïve (Wengraf, 2001).

To assist in my analysis of the interview data, I used NVivo® qualitative data analysis software that enabled me to link the MP3¹² recorded interviews with the interview transcripts and documents related to curricula. Electronic versions of data for each case allowed me to code using the theory questions as categories whilst making “theoretical memos” (Wengraf, 2001). Although data was coded separately for each theory-question, I found that, in some instances, the same section of data could be coded for more than one theory-question. This was not perceived as problematic as it confirmed the notion of interplay between structures and mechanisms in the domains of Culture, Structure and Agency.

I am conscious of the cautionary notes offered by qualitative researchers regarding the limitations of interview data. Seale (2004) concurs with Wengraf’s assertion that interview data provides access to participants’ experiences and constructed accounts of their

¹² MP3 is an audio file format, based on MPEG (Moving Picture Expert Group) technology

involvement in activities that require the researcher to analyse so they are not treated at face value. Therefore realist researchers take into account that interview data is useful so long as there is cognisance that people's pronouncements are their conceptions and perceptions of reality and may also provide inaccurate accounts of events.

Archer (1995) cautions against sole and/or over-reliance on interview data as this puts the research at risk of the 'fallible partial appreciation' by agents of their structural and cultural contexts (1995:177). The privileging of agents' perceptions can result in the distortion of context and constrain explanations of emergent structural and cultural powers and properties. In the realist tradition, researchers engage in retroductive analysis which involves asking questions such as 'What else needs to be the case? What else must be present for X to be such as it is, and not what people think, notice, tell or believe is the case?' (*ibid*: 177).

This caution notwithstanding, I would argue that, through the use of appropriate theoretical concepts combined with other techniques, interview data can lead to the identification of causal mechanisms at the deeper stratified layers of reality.

5.5.2 Document analysis

May (2001) views document analysis as useful as it historically contextualises contemporary accounts. In this thesis, a range of documents was used as data sources. The range comprised course hand-outs, students' reflective journals, research reports submitted by students as course requirements for some of the service-learning modules, informal electronic communication with academics, Departmental web pages as well as what Bernstein (2000) describes as 'mythical' documents which, in this case, included Departmental and institutional vision and mission statements. Both public and private documents were included. According to May, the inclusion of both public and private documents has the potential to provide insights into events themselves as well as how these are constructed and perceived by participants (May, 2001).

May (2001:176) further notes the value of documents by stating that:

Documents, read as the sedimentation of social practices, have the potential to inform and structure the decisions which people make on a daily and longer-term basis; they also constitute particular readings of social events. They tell us about the aspirations and intentions of the periods to which they refer and describe places and social relationships at a time when we many not have been born, or were simply not present.

My analysis of documents followed the practice of selecting what I saw as relevant and collated this in order to identify sequences, patterns and tendencies (Ericson 1991:55 in May 2001:193). As I have already indicated, I did this using Nvivo software.

My focus during the analysis of the documents was the identification of causal powers and properties. In order to do this, I used both my meta-theory and substantive theory.

5.6 Data analysis

Data analysis involves engaging in the inductive process of conceptual abstraction, abduction and retrodution in order to examine the complexity of the objects of research (Danermark *et al.*, 2002; Henning *et al.*, 2004).

Abstraction can be described as a way of isolating certain aspects in thought.

The act of data analysis therefore involves, to a large extent, using the available concepts to engage in abstraction, allowing the researcher to examine the deep generative mechanisms that produce events at the level of the Actual and which may or may not be experienced at the Empirical level. Source data collected at the Empirical level requires researchers to use their own reasoning ability to abstract from text in order to make inferences from selected data (Danermark *et al.*, 2001:79).

Miles and Huberman (1994) argue that abstraction is part of ‘data reduction’, which, in their view, is part of the process of making analysis process apparent throughout the life cycle of the research project.

Another term typically used in relation to data analysis in research with a critical realist orientation is ‘abduction’. This refers to the process of recontextualising data as theoretical constructs in order to explain the object of study. In the case of my study, the recontextualisation of, say, a funding formula as structure with powers and properties with the potential to contribute to emergence would constitute abduction.

Retrodution, another term used in critical realist research, is also termed ‘transcendental argumentation’ (Bhaskar, 2008). This is the process whereby the researcher comes to an understanding of the internal relationships between objects through a process of asking what things must be like in order for the object of research to be the way it is.

Miles and Huberman (1994) suggest a process of analysis that moves from data reduction to data display and finally to drawing conclusions and verifying them. The process of noting

regularities, patterns, possible configuration, and causal explanations is one and the same. It is the process of drawing of conclusions from the data and verifying those conclusions (*ibid*).

Crang (2003) refers to the process described by Miles and Huberman as ‘recontextualisation’, where the researcher draws together theoretical and empirical data and transforms this into a ‘plausible and persuasive whole’ (Crang, 2003:133). The outcome is that thematic organisation of data is employed in order to enable the researcher to provide answers to research questions drawing from the ‘messy reality’ of social life presented in the data.

Producing the analysis involves an element of narration; the articulation of the analytical process followed.

5.6.1 Discourse analysis

Discourses are real in the sense that they refer to mechanisms at the level of the Real and thus have causal powers affecting social practices and social institutions. In this study drawing on Archer (2000), I link discourse mechanisms in the domain of Culture. The employment of discourse analysis as a method of analysis is appropriate in a study underpinned by critical and social realism. A range of varying conceptions of discourse analysis is available (see Willmott, 2005, citing Reed, 2000, 2003).

In this study, I draw on Kress’s (1989:7) definition of discourses as:

... systematically organised sets of statements which give expression to the meanings and values of an institution. Beyond that, they define, describe and delimit what it is possible to say and not possible to say (and – by extension – what it is possible to do or not to do) with respect to the area of concern of that institution, whether marginally or centrally.

A discourse such as *Academic Freedom* (identified in all of the cases in my study) therefore comprises a set of statements about the importance of academics being able to act in unconstrained, but responsible, ways. This discourse contributes to the emergence of events and practices and to experiences of and observations about these.

I analysed discourses through coding sets of ideas, thoughts and beliefs that seemed to fit together and could be categorised into patterns. These were then related to social practices I could identify. The coding of texts and naming of discourses is to a certain degree arbitrary and idiosyncratic, circumvented by my knowledge of the field and using substantive theories to provide reasons for choices of particular codes. My identification of discourses was subject to validity checks described below.

5.6.2 My research narrative

Riessman (1993) asserts that narration is a solution to ‘the problem of how to translate *knowing* into *telling*’. Because the narration is ‘constructed, creatively authored, rhetorical, replete with assumptions, and interpretations’ the text I produce can only partially and selectively represent what is true although the story is of ‘the real world’ and not fabricated fantasy (*ibid*).

My intention was to produce a narrative rich in causal explanations of the conditions enabling and constraining the infusion of service-learning in curricula. The undertaking was therefore to hold in balance a theoretical account in which objects of research were abstracted and thick descriptions of the concrete situations explained (Sayer, 1992). Therefore it is necessary that the process of analysis displays a sense of connection between events as well as the causal mechanisms operating within the specific context (Maxwell, 2004b). According to Maxwell, presentation of the results needs to combine a focus on the configurational dimension of analysis and the episodic narration of events (*ibid*: 256)

5.7 Validity

Critical realism acknowledges the fallibility of researchers. It is thus the responsibility of the researcher to provide grounds for legitimising observations made throughout the research process. According to Maxwell (1992), validity is reliant on the relationship between conclusions drawn by the researcher and the reality of the research context (Maxwell, 1992). Developing causal explanations is an ambiguous and complex process with validity threats, which can be compensated by a research design that takes threats into consideration (Maxwell, 2004a). According to Yin (2003), research quality can be judged and he proposes three techniques to assure validity of case study research.

The first of these is achieving construct validity, which can be assured through the use of multiple sources in order to establish a chain of evidence (Yin, 2003). In addition, key informants should be asked to review the draft of the research report. The second technique is to ensure that the inferences made about the data and the cases are adequate so as to avoid threatening internal validity (*ibid*: 36). This requires the researcher to engage in processes of explanation-building and the use of opposing or alternative explanations. Yin (2003) also suggests pattern matching and logic models as techniques of countering internal validity threats to the research. These were not employed in this study as they were deemed

inappropriate. The third technique is that of using processes of abstraction and abduction in assuring external validity. At all times, it is important for the researcher to provide a description of the process through which the study was conducted.

According to Maxwell (2004b) there are ways of assuring validity in the development of causal explanations. This can be achieved by using the 'modus operandi' approach of searching for discrepant evidence, member checks and triangulation. He also points to the value of soliciting feedback from others about one's judgments in order to check for discrepant evidence to see if there is a need for adaptation to conclusions and to identify problems with explanations, biases and assumptions. Using data from a range of sources or using a range of methods or a range of settings assists in limiting inherent biases due to reliance on one particular source. Caution must be exercised, however, in the use of multiple sources in that certain kinds of data carry the risk of a self-reporting bias (Fielding & Fielding in Maxwell, 2004b: 259).

In the course of my study, I have used all these methods of assuring validity. I have invited participants in my research to comment on insights I have identified and conclusions I have drawn. In addition, I have benefited extensively from comment from my colleagues in the Centre for Higher Education Research, Teaching and Learning (CHERTL) who have been willing to read drafts of chapters and to listen to my ideas expressed in a more tentative fashion. I have also made a number of presentations at conferences and other events and have used these as opportunities to learn from comment and critique. My search for evidence that could offer alternative explanations was facilitated by my use of Nvivo. As I have indicated above, I have also used a range of sources and a range of methods.

The relationship or role that a researcher has with the context is important in validating the study. I am a staff member at Rhodes University, the institution that is the focus of my study and, while Yin (1993) advocates that one of the selection criteria for a case site can be feasibility and access, as a researcher I was aware that feasibility and access can constitute a validity threat. This is because a close link with the object of study has the potential to produce data that is almost self-serving because the researcher is blinded by the context with which she is so familiar. One way around this problem involves employing the 'modus operandi' approach discussed above (Maxwell, 2004b: 258):

The researcher tries to identify the potential validity threats, or alternative explanations, that would threaten the proposed explanation and then searches for 'clues' as to whether these processes were operating and if they had the causal influence hypothesised.

My awareness of threats derived from my relationship to the context of the study was heightened by my use of a research journal kept throughout the study.

5.8 Ethical considerations

Decisions around ethics are made at all stages of the research process. Considerations are made in respect to decisions made in the 'light of an evaluation of the particular politics (including one's own "personal politics") of the situation under study, with all its conflicting interests and imbalances of power' (Oakley 1981 in Sayer, 1992:256).

It is the responsibility of the researcher to strive for ethical integrity in all aspects of the research process, by making her values and assumptions open to the reader's scrutiny. I have tried to achieve ethical integrity by giving as much contextual background to the case as possible and by making explicit the meta- and substantive theories and methodological principles which informed my research as well as specifying my research processes in detail.

Bassey's (1999:73) 'respect for democracy, respect for truth and respect for persons' also guided ethical considerations. In this study, respect for democracy entailed asking participants interviewed in this study to give informed consent. Participants were given the opportunity to choose not to give their consent or withdraw consent at any stage of the study (see Appendix II for both Head of Department and Participant consent forms).

Respect for truth meant ensuring the validity of the research as discussed earlier. 'Truth' for critical realists is not held as a 'correspondence theory', that is, truth equals reality, but rather truth is held to have 'practical adequacy' (Sayer 1992).

Respect for persons consisted of making ethical decisions in which the interests of the participants were considered above the aims of my research project. I strove to ensure that the expressed opinions of the participants did not endanger them either personally or professionally. The size of Rhodes University means that it is not possible to guarantee complete anonymity despite using pseudonyms. Participants were all aware of this. I have therefore taken care in the manner in which I present the narrative of each case not to reveal anything that might be damaging to individuals, the departments or the institution while attempting to maintain a critical perspective suited to inquiries within a higher education context.

5.9 Conclusion

The focus of this chapter was to describe the methodological framework and the specific methods used to answer the following question:

What systemic factors impact on how and where infusion of service- learning is possible in higher education curricula?

Having described and discussed the research methodology employed for this study, I will now move into an analysis and discussion of the data and the findings of the research.

Chapter Six: Systemic Conditions

6.1 Introduction

In this chapter, I present an analysis of the systemic conditions impacting on the emergence of events and experiences related to higher education in South Africa. The four cases on which this study is based, and which appear in the thesis as Chapters Seven, Eight, Nine and Ten, draw on the analysis in this chapter. In this chapter the aim is to identify structures and mechanisms at the level of the Real that contribute to or constrain the emergence of service-learning.

In line with Archer's (1996) analytical dualism, the discussion separates structural, cultural and agential conditions. An analysis of the interplay between these conditions allows us to begin to provide explanations of the way the emergence of service-learning is enabled or constrained at Rhodes University, a research-intensive, English medium university.

6.2 The domain of Structure

The effects of apartheid continue to structure South African society and the South African Higher Education system. Much of my analysis of the domain of structure therefore speaks to the legacy of apartheid which, eighteen years after the demise of this iniquitous system, continues to impact on all aspects of South African life.

6.2.1 The apartheid-structured Higher Education system

White middle-class men educated in apartheid South Africa are highly represented in the academic staff complement at Rhodes University¹³ (Rhodes University Digest of Statistics, 2010). The significance of this is that middle-class¹⁴, home-based experiences are prevalent in

¹³ According to the 2010 Rhodes University Digest of Statistics, out of 357 permanent academic staff on campus 177 are white males. White female academics follow as the next represented group at 110. Collectively male and female African, Coloured and Indian representation number only 70.

¹⁴ I have chosen to cite the notion of social class, as well as race, because of analyses (for example, the work of Heath 1983; Gee 1990) that show how social class impacts on learning. In South Africa, apartheid structured black citizens into working class positions. Although a growing middle class has emerged since 1994, the majority of black South Africans continue to occupy positions in the working class. Race tends to elide social class in South Africa because of our history. My position, following,

this University and thus inform conceptual understandings of learning and identity and impact the curriculum decision-making process.

Kotta (2010), drawing on Wallace *et al.* (1999) and Altbach *et al.* (2005), notes that traditional universities such as Rhodes University were fashioned for men in an elite social class. As a result, they tended to serve a narrow segment of society and valued certain kinds of knowledge. In doing so, they maintained autonomy and were less accountable to broader societal concerns (*ibid*, 2010:67). This kind of autonomy is synonymous with liberal education, which Barnett (2000a: 25) describes as ‘disinterested reason’ seen as ‘free from, untainted by worldly preoccupations’.

Under apartheid, universities were classified according to racial divisions. Rhodes University was categorised as one of four historically white English medium ‘liberal universities’ (Bunting, 2002a: 70). Kissack and Enslin (2003:39) point out that references to these universities as ‘liberal’ are not indicative of their service to a broad spectrum of society but rather to the fact that, on the surface at least, they did not claim to serve apartheid ideology. Access to these universities was reserved for ‘the progeny of the traditionally aristocracies and the newly emergent middle classes’ (2003:39) largely because these universities were constructed according to the British Empire ethos and inherited that legacy (*ibid*).

As I have already indicated, the ideological stance of the white English medium universities was to refuse to adopt the apartheid government’s conception of universities as state apparatus. The ‘liberal’ universities argued that universal values of academic freedom ‘made it impossible for them to act as the servants of the apartheid state’ (Bunting, 2002a:70). The objections from these four universities (as well as other sectors of South African society), often made most forcibly, were focused on the implementation of apartheid through a number of pieces of legislation that are discussed below in chronological order.

The first piece of legislation was the Group Areas Act (Act No. 41 of 1950) that demarcated different residential locations according to the apartheid-configured race groups of White, Coloured, Indian and Black (Seroto, 2004:102). This was followed by forced removals of those deemed living outside the residential areas identified for their race group. This then had implications for educational opportunities from which would emerge unequal social opportunities.

for example, Boughey 2012, is that social class needs to be re-inserted into analyses and particularly into analyses of higher education in this country.

The second was the Bantu Authorities Act (Act No.68 of 1951) that saw the establishment of Black reserves, or 'homelands', to which Black South Africans were assigned according to their records of origin. This process made them citizens of homelands ruled by regional authorities and stripped them of South African citizenship (Behr, 1988:16). Homelands were considered 'self regulative', which was the logic used to legitimise the insufficient funding with heavy restrictions provided under the watchful eye of the apartheid government.

Most catastrophic to the education system in South Africa, leaving a legacy that still affects the present day, was the Bantu Education Act (Act No. 47 of 1953). The apartheid government based this Act on principles identified by the Eiselen Commission that 'considered that Black education should be an integral part of a carefully planned policy of segregated socio-economic development of Black people' (Christie & Collins, 1982:59). The findings and recommendations of the Eiselen commission were the bedrock from which a campaign to limit education for the Black population was then launched. This Act situated Bantu education within the Ministry of Native Affairs, headed by the influential Dr. H. F. Verwoerd who would later become the seventh Prime Minister of South Africa (1958-1966), in recognition of the contribution he had made, the attention he had paid and the ingenuity he had used to keep the Native in her place:

My department's policy is that education should stand with both feet in the reserves and have its roots in the spirit and being of Bantu society...The Bantu must be guided to serve his community in all respects. There is no place for him in the European community above the level of certain forms of labour. Within his community, however, all doors are open... (cited in Seroto, 2004:112).

The legislation impacting on the higher education system, and aimed at ensuring that the Black population was educated to occupy restricted professions, was promulgated as the Extension of University Education Act (Act No. 45 of 1959). This act stipulated that different racial groups should be restricted to the universities allocated for that particular race. The aim was to reserve particular professions for specific race groups. By the mid 1980s¹⁵, twenty-nine publicly funded institutions of higher education had been established within the borders

¹⁵ In the early 1980s the apartheid government divided South African into five legally independent 'statehoods': The Republic of Transkei, The Republic of Bophutatswana, The Republic of Venda, The Republic of Ciskei and The Republic of South Africa (Bunting, 2002:59). However, these were not recognised by the international community as they were seen as the further entrenchment of disenfranchisement of Coloured, Indian and Black citizens.

of the former Republic of South Africa. Nineteen of these were exclusively for whites, two exclusively for 'Coloureds', another two exclusively for Indians and six exclusively for Blacks (Bunting, 2002a: 61). The ratio between institutions intended for white and black social groups was nowhere indicative of the ratio between these groups in the general population – an indication of the overall limiting of access to black students by the regime.

Legislation prevented institutions admitting students who did not fall within the designated race group of that institution. This had the effect of forcing different social groups into different professions by virtue of the programmes offered at the institutions designated for them. For instance, the Black population was largely limited to the teaching, nursing and social work professions with exceptional cases admitted into law and general medical practice. The exceptions were granted once the student could prove that the degree applied for was not available at institutions designated for their race group (Bunting, 2002a:61). It was on this basis that small numbers of Black students came to study at the historically white liberal universities such as Rhodes.

Prior to the new dispensation of 1994¹⁶, the higher education landscape was characterised by two main divisions resulting from race and understandings of the nature of knowledge. Institutions, for example, were classified as Universities or Technikons¹⁷. Within each category, racial distinctions then came into play. As Bunting (2002a:65) notes, the distinction between white Afrikaans and white English medium universities did not only signal the language of communication and instruction but more significantly the level of support for the ideals of the apartheid government with the former emerging as 'instrumentalist institutions which were governed in a strongly authoritarian way' while the latter took what was usually claimed as a strong anti-government stance.

According to Bunting (2002a) the white English medium universities had the understanding that any university in any country, by its very nature, should maintain a 'distance' from government influence to remain credible. This meant that resistance to the apartheid government was not always on the basis of anti-racism *per se*. A shameful incident occurred at Rhodes University in 1967, for example, when black representatives at a National Union of African Students (NUSAS) conference being held on the campus were denied access to

¹⁶ The new dispensation refers to the period commencing with the first democratically elected government led by the African National Congress.

¹⁷ In response to growing commerce and industry, the 1969 Advanced Technical Education Act (Act No. 40 of 1967) established six Colleges of Advanced Technical Education. In 1979 these six colleges for advanced technical education evolved into Technikons (Powell, 2010:31).

university residences. One of these delegates was Stephen Bantu Biko, leader of the Black Consciousness Movement. Biko was incensed, not by the banning of black students from the residences, but by the decision of other student leaders to continue with the conference. A public apology was made to the Biko family for this incident in 2008 by Vice Chancellor, Dr Saleem Badat. A new history of Rhodes University has just been commissioned which will specifically look at the role played in apartheid.

Arguably, part of the desire for ‘credibility’ on the part of academics at the white liberal universities stemmed from their perceived need to be regarded as part of the international community of scholars dedicated to the advancement and propagation of all human knowledge. The stance taken by the white English medium universities allowed them to maintain strong ties with international academic communities¹⁸ in spite of the academic boycott. This contrasted with the white Afrikaans medium universities that did not enjoy the same international links. The strong ties to the international academic communities provided funding opportunities by international donors. This meant that these institutions were less dependent on funding from the apartheid government thus diversifying their income (Bunting, 2002a:71). This diversification of income benefited the core purposes of these universities, in particular research. The funding allowed the already strong focus on research to be maintained during apartheid and thus provided the edge to continue with the strong research focus coming out of apartheid. This had significance for all disciplinary areas.

In relation to the emergence of service-learning at Rhodes University, structural conditions during the apartheid regime have left a legacy in the domain of culture. Rhodes University’s position as a historically White liberal university has resulted in research being prized and arguments for the maintenance of traditional curricula and pedagogies. In the late 1990s and early 2000s, as other universities moved towards an institutional discourse identified as the ‘programme route’ – i.e. the development of more vocationally based programmes which often resulted in the reorganisation of traditional disciplines into schools, claims in the RU’s discourse were that the University should eschew ‘Mickey Mouse’ approaches (Boughey, *pers.comm*, 2011).

¹⁸ One of the universities with the strongest international links during the apartheid era was, ironically, the University of the Western Cape (UWC), a so called ‘bush college’ established for Coloured students on the Cape peninsula. Thanks to the leadership of Rector Jakes Gerwel, UWC unilaterally opened its doors to black students invoking the wrath of the apartheid regime and accompanying restrictions. The international community rallied around UWC providing funding and support.

So far the discussion has focused on the structural conditions under the apartheid regime which, in terms of my framework, would lead to the potential for structural emergent powers and properties to impact on the emergence of events and experiences in particular ways. With the official demise of apartheid rule and the ushering in of the new democratic dispensation in 1994, structural changes were introduced in an effort to eradicate the legacy of apartheid.

6.2.2 Policy post-apartheid

Cloete (2002) outlines the ‘participatory drive towards policy formulation’ in the post-1994 era. I have already mentioned influential national educational policies that shape the current South African higher education system in Chapter Two. I return to discussing national policies to indicate the structural emergent powers and properties (SEPs) which have the potential to impact on the emergence of events and experiences related to higher education at institutional and national levels.

Post-1994 policy on the higher education system is underpinned by the findings of the 1996 National Commission on Higher Education (NCHE) report summarised thus in the preamble:

The system of higher education must be reshaped to serve a new social order, to meet pressing national needs, and to respond to a context of new realities and opportunities. This report is intended to serve as the basis for such a process of transformation. It envisages a new system of higher education characterised by increased participation by all sectors of society; by greater institutional responsiveness to policy imperatives, and by a new set of co-operative relations and partnerships between higher education and the broader society (NCHE, 1996:1)

A number of instrumental policies were recommended and referred to in the NCHE report in order for the higher education system to achieve and respond to the mandate of transformation.

One of the first of these was the South African Qualifications Authority Act (SAQA) (Act 85 of 1995) which established the South African Qualifications Authority (SAQA) as a body responsible for the registration, monitoring and auditing of all qualifications. The Act also mandated SAQA to develop an

... integrated national framework for learning achievements which facilitates access to mobility and progressions within education, training and career paths, enhance the quality of education and training, accelerate the redress of past unfair discrimination of education, training and employment opportunities and thereby contribute to the full

personal development of each learner and the social and economic development of the nation at large (SAQA, 1995: 1&2).

This framework came to be termed the National Qualifications Framework (NQF). Although SAQA drew heavily on a range of academic expertise to set up the framework through the establishment of Standards Generating Bodies (SGBs), this did not alter the perception that the structures of SAQA and the NQF themselves were external to the universities and to the perception that they were an encroachment on the autonomy of the traditional structures and mechanisms used in academic institutions to develop programmes and set and maintain academic standards (Quinn, 2006). As a result, tension arose between the established internal quality assurance practices and those introduced by the NQF.

Quinn (2006:210) claims that the interpretation that developments such as SAQA and NQF were symbolic of an 'increasing loss of academic freedom' by Rhodes University academics is aligned to similar sentiments expressed by academics internationally in countries such as United Kingdom, Australia and New Zealand.

Although the SAQA Act was to have profound implications for South African higher education, it was the 1997 White Paper (DoE, 1997), which provided the greatest guidance in reshaping the system. The White Paper identifies four purposes for higher education all of which impact on the need for curricular reform. The impetus for service-learning can be located in the third purpose, identified as:

To contribute to the socialisation of enlightened, responsible and constructively critical citizens. Higher education encourages the development of a reflective capacity and a willingness to review and renew prevailing ideas, policies and practices based on a commitment to the common good (DoE, 1997:3-4).

As mentioned earlier, service-learning is often constructed as the ideal pedagogic tool (see Butin, 2005, Hlengwa 2010), which allows students to move between the everyday discourses of the community and the elevated discourses of the university, thus providing opportunities for students to recognise the value of their disciplinary knowledge in contexts beyond disciplinary communities and university boundaries. Service-learning can thus be understood to be a means of contributing to the common good where the curriculum is structured in a way which affords students the opportunities needed to conceptualise and experience the way disciplinary knowledge can contribute to the prevailing needs of the wider society.

The call to commit higher education to the common good was recognition that this sector would be an important driver of transformational goals of the country. This would contribute to the rebuilding of the nation and required more than well-meaning policy statements.

Other policy developments post-1994 involved the development of a new funding formula for public universities. Earlier in this chapter, funding was identified as key to the development of a strong research agenda (see 6.2.1). During the apartheid regime, two systems of funding were applied to higher education. A restrictive and under-resourced negotiated-budget formula was reserved for historically black universities and Technikons. Historically white universities, on the other hand, received significantly more money by means of a formula that allowed these universities considerable administrative and financial powers (see Bunting, 2002b).

South African Higher Education experienced various iterations of funding formulas (for more details see Bunting, 1994) during apartheid that left a legacy of inequality that would impact negatively on the transformation goals set by the government of national unity. The last piece of administration related to funding on the part of the apartheid regime was the South African Post-Secondary Education (SAPSE) framework.

In 1988, all higher education universities within the Republic of South Africa (i.e. those not located in ‘homelands’ or ‘bantustans’), including the six historically black institutions, were placed on the same SAPSE funding framework. Under this framework, funding was limited to ‘activities which generate substantial public benefits’ and, as a result, the cost of higher education was shared between the government as the recipient of public benefits and students as recipients of private benefits (Bunting, 2002b:118).

The SAPSE formula offered the government an opportunity to adopt a ‘hands-off’ approach to the funding and steering of higher education, thus giving universities high levels of autonomy with the state only intervening ‘directly in the higher education system . . . when the need existed for market failures to be corrected’ (*ibid*).

Although the historically black universities were initially very happy to accept the SAPSE funding formula, in practice it did not serve them well. The SAPSE formula was ‘heads based’ and the Black institutions benefitted from this as student numbers increased dramatically in the early 1990s. Towards the middle of the decade, however, numbers fell away as black students gained entrance to the historically white campuses that were trying to attract them in the spirit of ‘transformation’. This had profound effects on the historically black universities as, not only did they lose their best applicants (i.e. those with the capacity to meet the admissions criteria of the historically white institutions) but also they lost numbers.

The negotiated budgets of the apartheid regime impacted on historically black universities in other ways (see Bozalek & Boughey, 2012). One of the requirements of the funding system was that any unspent money would need to be returned to the administration at the end of each academic year. This resulted in annual spending frenzies as institutions attempted to use unspent money (Bunting, 2002b). The requirement that money should be returned also meant that the historically black universities were not able to build reserves, something which all the white universities had in abundance. Perhaps of most significance, however, was that the fact that the need to negotiate around budgeting meant that the historically black universities did not develop the capacity or the culture necessary for financial planning and administration – a phenomenon which continues to haunt them to this day (Bozalek & Boughey, 2012).

Predictably, the NCHE recommended that SAPSE be replaced by a fundamentally different framework:

A new funding framework for higher education in South Africa should be developed which is consistent with the principles of equity (including redress), development, democratisation, efficiency, effectiveness, financial sustainability and shared costs (NCHE, 1996:216).

Although it was accepted that SAPSE would be abolished, it was also evident that the development, implementation and phasing in of the new National Funding Framework (NFF) would be an arduous process. (Bunting, 2002b: 144). The NFF was eventually implemented into the system in the 2004/05 financial year (Ministry of Education, 2003).

The NFF was to have enormous implications for the HE system. For example, funding for teaching became performance based in that it was calculated in relation to the number of students enrolled and the rate and extent to which those students graduated. The NFF also awards different weighting for enrolments according to the Classification of Education Subject Matter (CESM).

Enrolments were, in turn, managed through a series of three-year rolling plans negotiated with the Department of Education.

Economies of scale impacted on Rhodes University's status as the smallest university in the country. Enrolling large student numbers as well as capitalising on enrolling students in the higher CESM categories is hampered mainly by geographical and infrastructural limitations and therefore maintaining high success and throughput rates became paramount in order to secure revenue from government subsidy.

Also significant in the NFF was that funding for research was also dependent on outputs. Since this funding was substantial¹⁹ all universities in the higher education felt the need to benefit from it. This has resulted in the promotion of research activities sometimes at the expense of teaching. Clearly those universities with the capacity to do research developed in the apartheid era benefited most from this funding with others chasing to develop capacity again, sometimes at the expense of the development of teaching capacity.

The three-year rolling plans negotiated with the Department of Education for funding purposes have already been noted above. In addition to negotiating enrolments, from the early 2000s onwards institutions were also required to negotiate a 'Programme and qualification mix' (PQM) - a process intended to 'shape' the system using institutional mission and vision statements along with understandings of location, historical legacy and the need to meet national needs. The development of institutional 'PQMs' was also informed by the idea that the entire HE system and individual institutions should be 'fit for purpose' and that aligning the programme and qualification mix with mission and vision statements and institutional type would contribute to this. Developing a PQM therefore involved considering the ability of the institution to offer a programme leading to a qualification as well as the fit of the qualification and programme to the institution itself.

Both funding and the PQM were identified as 'levers' for transformation of the higher education system (Bunting, 2002b). A final lever involved the introduction of a national quality assurance system under the auspices of a standing committee of the Council on Higher Education, the Higher Education Quality Committee (HEQC). The Founding Document of the HEQC was published in 2000 (CHE, 2000) and the development of a national quality assurance system involving institutional reviews, programme accreditation and national reviews began thereafter.

Although academics may have agreed in principle, and even perhaps argued for, the need of a transformed higher education system, the practical implications of the three levers tended to be perceived as undesirable and intrusive of institutional autonomy. Certain sections of the academy at Rhodes University and other universities perceived these levers as subjecting academic activities to external and internal scrutiny and monitoring processes leading to

¹⁹ A single research unit is usually worth about R120 000 in 2012 terms. An article published in an accredited journal (i.e. a journal on the ISI or IBSS or a special list of journals approved by the Department of Higher Education and Training) brings in one unit. The graduation of a master's student who has met the requirements of the degree 'by full thesis' (i.e. no coursework) brings in one unit and a doctoral student three units.

resentment, charges of managerialism and of encroachments on academic freedom. In short, the levers were constructed as the surveillance of academic activity shifting it from a private activity into the public arena and, thus, open to internal and external scrutiny (Quinn, 2006:138).

6.2.3 Institutional curriculum structures

Ensor (2002:277) describes the difference between traditional discipline-based programmes and credit-exchange vocationally oriented programmes thus:

In practice the disciplinary and exchange discourses foreground different aims for university undergraduate curricula. The disciplinary discourse favours formative education at both school and university level, with the apprenticeship of students into specialised domains of knowledge. The credit exchange discourse (as promoted in South Africa, at any rate) favours modularisation of the curriculum, a focus on generic skills, and selection from these modules by students to create curriculum packages to meet their own requirements.

Ensor's research (*ibid*, 286), in which Rhodes University features as a case, illuminates the reasons influencing the decision to continue offering traditional discipline-based degrees at the institution:

The leadership of the university had held fast to its position that the best way to 'respond to the market' is to continue with the general, formative undergraduate education it has prized itself in providing.

As I have already indicated, other discourses also informed the choice of this route.

Regardless of whether universities chose the credit exchange route, which required major curriculum changes across disciplines, or whether they chose the conservative route like Rhodes University, there was national and institutional structural pressure to reconceptualise curricula to align with the NQF and offer programmes leading towards a set of learning outcomes. This is because the concept of the learning outcome had been identified as an organising principle that would allow qualifications to be described and registered on the framework. At Rhodes University, policies were written requiring the development of outcomes statements for all courses, although the extent to which these policies have been implemented is highly questionable. In the early 2000s, much of the work of the Centre for Higher Education Research, Teaching and Learning (CHERTL) at the University was focused on supporting departments and individuals as they met these policy requirements.

6.2.4 Teaching and learning structures

The need for the South African higher education system to serve all South Africans equally post-apartheid has already been mentioned. Thanks to apartheid education structures, black students have long suffered from poor quality schooling that has impeded their access to and success in higher education. The problems associated with access and success have long been the domain of what is widely known as the South African Academic Development movement.

As Boughey (2007) points out, over the years, the fortunes of this movement have not been even. One of the results of these changing fortunes (see Boughey, 2007a, for an explanation) is that the cadre of experienced and qualified practitioners, who are able to work with teaching and learning in strategic ways, is not as large as it could be. The potential of the movement as a structure to lead to enhanced events and experiences related to teaching and learning is therefore limited.

Mention has already been made of the output-based nature of the funding formula for higher education. Associated with this is the Teaching Development Grant (TDG) traditionally paid to universities with teaching outputs that do not meet norms identified by the DoHET²⁰. A portion of the total subsidy allocated to teaching outputs in Ministerial Funding Statements is ‘top sliced’ to allow for the payment of TDGs. Until 2012, no checks were in place to ensure that TDGs were, indeed, used to enhance teaching. From 2012 onwards, however, universities need to submit proposals for the use of these grants and to evaluate the success of the grants by means of annual progress reports.

The document outlining criteria for the allocation of TDGs published early in 2012 (DoHET, 2012) notes that, historically, these grants have been used for i) the development of ‘teaching expertise of people who need to do the teaching – the lecturers’; ii) payment for additional teaching support in the form of mentors, tutors, etc.; iii) teaching resources; iv) ‘student focussed activities’; and v) ‘other activities which have more tenuous links to the development of teaching’. The document goes on to note that, from 2012 onwards, the grants are to be used ‘explicitly and directly’ for teaching development.

Boughey (2011) argues for the need for teaching to be differentiated in a system that is also differentiated by institutional type and mission and vision statements. Service-learning is specifically mentioned as an element of teaching that could be used to enhance teaching in institutions with a strong community orientation as a mission. The extent to which TDGs

²⁰ In 2012, Teaching Development Grants were made available to *all* universities for the first time. This meant that Rhodes University received a grant for the first time.

could function as a structure leading to the emergence of service-learning is yet to be seen. No analyses of the use of the grants have been completed to date. At the moment, therefore, TDGs have the potential to be dormant in relation to service-learning unless agents draw on them to promote its use as a pedagogical tool.

In some countries, a national body has been established with the explicit aim of enhancing teaching in higher education. In the United Kingdom, for example, the Higher Education Academy serves this purpose. When the HEQC was established as the body responsible for quality assurance in South Africa in the early 2000s, a Directorate for Capacity Building was initiated. Ideally, this Directorate would have worked with quality in teaching and learning and, given that the definition of quality used by the HEQC centres on the notion of 'fitness for and of purpose', efforts to align teaching with institutional mission and vision would have been a possibility. Sadly, this Directorate has not functioned for a number of years. As a structure with the powers and properties to lead to the emergence of service-learning (in a way envisaged by Boughey, 2001), the Directorate is dormant.

Although national level structures focused on the enhancement of teaching and learning have not been established, at institutional level there has been more success. The focus on increased throughput and graduation rates occasioned by the introduction of the output based funding formula has led many universities to establish Teaching and Learning Centres. This has often been achieved as the result of the revitalisation of older centres (see Boughey, 2007a). However, the lack of capacity in the field amongst agents working with teaching and learning remains a problem particularly with respect to the use of theories informing practice (Boughey & McKenna, forthcoming). Once again, therefore, the potential of these structures to contribute to the emergence of service-learning needs to be questioned.

One final structure related to teaching and learning needs to be mentioned – the development of a qualification intended to enhance the capacity of academics to work in teaching and learning by a national Standards Generating Body in the early 2000s. This qualification, the Postgraduate Diploma in Higher Education (PGDHE), is offered at some universities, Rhodes University being one. As Boughey & McKenna (2011) point out, however, the potential of structures such as formal qualifications and courses in teaching in higher education to lead to enhanced events and experiences related to teaching and learning is limited if completion is not linked in some way to institutional reward systems, such as tenure and promotion. At

many universities, courses and qualifications are not ‘pegged in’ to such reward systems²¹.

Thus far I have identified emergent structural conditions at a systemic level that interplay with cultural (see 6.3) and agential (see 6.4) conditions. These structural conditions are drawn on in my analysis of the four cases (Chapters Seven, Eight, Nine and Ten) where I illustrate how these conditions play out at a disciplinary and departmental level.

The following section focuses on cultural conditions at a systemic level.

6.3 The domain of Culture

6.3.1 Valuing research

The tradition of knowledge production in South Africa dates as far back as the 18th century (Bawa & Mouton, 2002). However, it was only in the 19th century that research endeavours were formalised and institutionalised.

During the apartheid regime, South African research activities were firmly entrenched within the universities, promoting the nation as a global competitor whilst serving the needs of those ruling the country²² (*ibid*: 298). With the advent of a new dispensation, various studies were undertaken to ascertain the state of affairs in the research arena in South African Higher Education. What emerged as an observation from the NCHE and other influential commissioned studies funded by bodies such as the International Development Research Centre (IDRC) was that ‘the country’s substantial research system was hopelessly disarticulated from the needs of the majority of South Africans’ (Bawa & Mouton: 299).

This observation was taken on board and resulted in a commitment in the 1997 White Paper to create a new framework for research. As a result, the National Research Foundation (NRF) was established. Frameworks developed thereafter reformed and guided research funding for universities basing it on ‘broad socio-economic and political agendas’ (*ibid*: 299).

²¹ At Rhodes University, academics need to demonstrate competence as assessors before tenure is awarded. A course in assessment is offered by the Centre for Higher Education Research, Teaching and Learning to assist them in doing this. The course results in an accredited qualification.

²² It is ironic that, although the first heart transplant was carried out in South Africa, research into the many diseases which plague the continent was not prevalent.

As a historically white English medium university, Rhodes University enjoys a competitive research output and is usually in the top three universities when *per capita*²³ research units are counted. Although the much-needed revenue generated from research output and postgraduate students is important to an institution as small as Rhodes University, this is not the only factor that increases the privileged space occupied by research in the university. The identification of RU as one of five ‘research-intensive’ universities in the South African system (CHET, 2010) affirms discourses within the University constructing it as a ‘scholarly university’ (Boughey, 2009). Since this status also brings recognition, not only to the University but also to the academics it employs, there is a resultant discursively constructed need to ensure that it is maintained and improved.

As the case studies in this thesis will show, the discourse I have termed ‘Valuing Research’ is very dominant at Rhodes University. However, it is also dominant in the country more generally. As I have indicated, the historically black universities were deliberately fashioned in ways that limited their capacity for research. As a result, the ability to produce research has come to be privileged in the domain of culture at a national level. At the level of the actual, this is evidenced in the appointment of deputy vice chancellors and other social actors with the responsibility of promoting research and in the reward systems that award individual academics for research production²⁴. Habib (2013, in press) provides an account of some of the thinking behind the rewarding of academics in this way.

6.3.2 Academic autonomy

The extent to which academics in South Africa have been allowed to be autonomous of state concerns is questionable because of apartheid. What I term the discourse of ‘academic autonomy’ involving a resistance to policy and other means of regulating the academy could be related to South African history, therefore. However, academic resistance to phenomena such as, for example, managerialism and quality assurance in higher education extends far beyond the borders of South Africa.

²³ Rhodes University cannot compete with much larger universities (such as the University of Pretoria) in terms of scale – the total research outputs produced by a larger university would be much greater than those possible at Rhodes. This means that the *per capita* output (or number of research units per individual) becomes important.

²⁴ At some universities, individuals are rewarded with a portion of the research subsidy. Even if this does not happen, recognition is awarded via research reports, research medals and so on.

South African institutions have varied experiences of autonomy depending on their history. As I have indicated above, the historically black universities were created for a specific purpose and managed to fulfil that purpose under the apartheid regime. In a similar fashion, the Afrikaans speaking universities were always more willing to comply with state control than their English speaking equivalents. Technikons, the former polytechnic institutions, also enjoyed less freedom than the historically white universities. As a result, the extent to which what I have termed the discourse of Academic Autonomy is privileged at institutional levels is dependent on history (Boughey 2009; Boughey, 2010; Boughey & McKenna 2011a,b) with the former technikons being most compliant to policy and legislation and the English speaking historically white universities being least compliant.

As Quinn (2006) points out, the discourse of Academic Autonomy works to protect dominant interests in the historically white university she studied. This means that if the dominant interest was not perceived to lie in adopting service-learning, the Academic Autonomy discourse could well be utilised. As I will show in my analysis of the cases on which my study is based, however, this is a simplistic assumption and the same discourse can also be drawn upon in interplay with other structures and mechanisms to contribute to the emergence of this pedagogic tool.

6.3.3 Teaching and Learning

The need for the higher education system to provide quality learning experiences to all South Africans has been a dominant feature of South African national discourse since 1994. Quality learning is understood by the CHE as meeting the following three aims: i) curricula designed to respond to national and regional contexts guided by national goals and framed by institutional missions, ii) practice geared towards continuous improvement of programmes that facilitate innovative teaching and learning renewal and iii) a focus on teaching and learning that promotes epistemological access for students from previously disadvantaged backgrounds (CHE, 2004:98).

Since 1994, the problem of the ‘under preparedness’ of black students in relation to higher education has arguably worsened in the wake of widely acknowledged failure in the schooling system (see Jansen 2004). The influence of the funding formula for higher education manifests itself alongside this under preparedness in discourses of efficiency (Boughey, 2007a) prioritising the need to improve throughput and graduation rates and to reduce attrition (Scott et al, 2007). As Boughey & McKenna (forthcoming) argue, however, the ‘cultural stockpot’ of ideas on which agents can draw to contribute to the emergence of more positive

events and experiences related to teaching and learning is very thin. As a result, the same theories and research, for example, work on surface and deep approaches to learning (Ramsden, 1992; Entwistle 2005) or Kolb's (1984) ideas about experiential learning are returned to over and over again. Boughey & McKenna (*ibid*) argue for the infusion of new ideas in the cultural stockpot focusing on what they term 'social' accounts²⁵ of learning.

The effects of the paucity of the 'cultural stockpot' on the emergence of service-learning have not been explored in any detail. Suffice to say that most work, as I have indicated earlier in this thesis, draws on the work of Kolb and does not take into account disciplinary difference in any engaged way.

The discourse of academic interest privileges the idea that academics need to be interested in what they do, that scientists are 'interested in' science. This discourse is supported by the structural conditions supporting a research driven agenda in institutions. Focusing on research aspects is a typical cultural characteristic of disciplines in traditional universities and more specifically those classified as research-intensive, a point elaborated during the case discussions in Chapters Seven (see 7.4.1.1), Eight (see 8.4.1.3), Nine (see 9.3.2.3) and Ten (see 10.2.2.3). However the post-1994 transformation goals challenged the existing discourse of interest from an individualistic, inward-looking conception of research to one where research serves interests.

6.4 The Domain of Agency

Following Archer (1998) (elaborated on in 3.1), Cultural Emergent Properties (CEPs) and Structural Emergent Properties (SEPs) as well as Personal Emergent Properties (PEPs) at the level of the Real account for the emergence of events and experiences at the levels of the Actual and the Empirical. Key to Archer's theory (*ibid*) is the idea that both CEPs and SEPs are dormant until acted upon by agency. Clearly, then, agents are key to the emergence of service-learning.

As agents, academics are very able to reason and reflect upon and analyse the contexts in which they find themselves. Their response to the structural 'levers' developed at a national level in an attempt to transform South African higher education is likely to be a sophisticated

²⁵ 'Social' accounts of learning take into account the contexts in which learners were raised and learn. These contrast with what Boughey & McKenna (*ibid*) term 'autonomous' accounts which locate the ability to learn in factors inherent to the individual.

one which cannot be counted on to contribute to change. As Henkel (2000) has pointed out, academics' primary interest is in their disciplines and it is from the discipline that academic identities emerge. Following Henkel's reasoning, given the choice between allegiance to the institution, the department or the discipline, the latter would always be preferred.

Although academics often claim autonomy, they can act as corporate agents simply by doing nothing. Their doing nothing then counts as an act of agency. The implications for calls for service-learning to be used as a pedagogic tool are obvious.

A typical academic department in South Africa consists of a Head of Department (HoD) who may also but not necessarily occupy one of the most senior academic positions (for example full professor) in the department, and a group of academics. Academics may then occupy other positions such as course or programme co-ordinator and so on. Typically, academic departments are organised within a faculty headed by a Dean who may, or may not, be elected. It is probably fair to say that the majority of Deans in South Africa are now 'executive' positions occupied by individuals appointed on fixed term contracts and possibly against performance targets. This is not the case at Rhodes University where Deans continue to be elected by their peers for a term of office of, initially, five years.

As I have already indicated, the move towards the development of vocationally based programmes in the late 1990s and early 2000s led to the reorganisation of academic departments into schools and other entities. To some extent, this might have meant that academics lost the disciplinary base on which they drew for their identity. Rather than reporting to an HoD who was a member of the same discipline, academics might then have found themselves reporting to a Head of School whose interests were invested in another area altogether.

In her analysis of agency, Archer (1995) refers to the construct of 'material power' that, in the academic context, would include the power accruing from full professor status, from having an excellent publication record or from having been appointed as HoD or co-ordinator of some sort. As my analysis of the cases which form the basis of this study will show, material power plays a significant role in accounting for the emergence of service-learning.

Since the late 1990s, however, a new group of agents, in Archer's terms 'social actors', has emerged. This group of individuals have specific responsibility for different areas of academic life. I have already mentioned the emergence of positions such as Deputy Vice Chancellor (DVC), Research. Equivalent positions have also emerged in relation to teaching and many universities have now appointed DVCs Teaching and Learning, or Deans Teaching and Learning. Although individuals occupying these positions have experience of management in higher education, their understanding of teaching and learning is often under-

theorised and based on 'common sense'. Where theory is used, it is drawn from the thin 'cultural stockpot' noted earlier. In some institutions, individuals appointed at this level are able to draw on the expertise located in Teaching and Learning Centres. However, the observation about the paucity of theory all too often applies here also.

The extent to which agents at whichever level will use their own PEPs to draw on SEPs and CEPs to allow for the emergence of service-learning will then depend on the concerns they have and the projects they identify for themselves. It is this that the cases presented in the four chapters that follow try to explore.

Chapter Seven: The Case of Entomology

7.1. Introduction

This is the first of four chapters presenting the four cases on which this thesis is based. The cases, as I have indicated earlier, are Zoology, Environmental Science, Philosophy and Psychology. The cases appear in the thesis in this order. Chapter Eleven then presents a cross-case analysis in order to draw insights across all four cases.

7.2 The case of Entomology

The interview on which the case of Entomology is based draws on one source, Tim,²⁶ a senior academic who has full professor status. He has taught Entomology for sixteen years in the Department of Zoology and Entomology at Rhodes University. Other sources of data include the Science Faculty and Departmental webpages, curriculum documentation as well as the annual *Rhodes University Calendar*.

Zoology has been offered as a discipline at Rhodes University since 1905 and the Department is therefore one of the oldest and most established in South Africa. The introduction of Entomology alongside Zoology in 1948 resulted in the Department being renamed ‘Zoology and Entomology’ – an event which can be seen to acknowledge the autonomy of Entomology as a discipline in its own right although both Zoology and Entomology are linked in a common Departmental structure.

The Department of Zoology and Entomology offers courses in the undergraduate curriculum (elaborated in Section 7.3.1) leading to the degree of Bachelor of Science (BSc). One such course is Zoology 101, which annually registers just below three hundred students. The staffing complement within the Department totals thirty-eight located in four areas of endeavour. Thirteen staff members are categorised as ‘academic’ with six specifically designated as lecturers in Entomology. A further three staff members are designated ‘research staff’, eleven are postdoctoral fellows and a further eleven serve as administrative and support staff. The Department of Zoology and Entomology is one of the eleven Departments comprising the Faculty of Science at Rhodes University.

²⁶ Tim is a pseudonym aimed at providing some measure of anonymity.

This case, as well as subsequent cases, will attempt to follow a standard format of analysis. From a critical realist perspective, the interview offers insights into experiences and observations at the level of the Empirical. In this case, those experiences and observations are those of Tim, the senior academic mentioned above.

The curriculum documentation provides a description of the emergence of events (in the form of lectures, practicals and so on) ‘packaged’ into courses at the level of the Actual. The course in Cultural Entomology, using service-learning as a pedagogic tool and which is at the centre of this case, is thus conceptualised as a series of events and practices at the level of the Actual. The Cultural Entomology course is offered in a fourth year of study, the first year of postgraduate work in South Africa, referred to as ‘Honours’. A more detailed account of this course will follow in the next section (see 7.1.2).

Curricular practices and events located at the level of the Actual, along with the experiences and observations of Tim (and noted of his colleagues by Tim) are then understood to emerge as the result of the interplay of structures and mechanisms at the level of the Real.

As already indicated in Chapter Two of this thesis, Bhaskar conceptualises the existence of structures and mechanisms, events and experiences and observations in the following way:

	Domain of the Real	Domain of the Actual	Domain of the Empirical
Mechanisms	✓		
Events	✓	✓	
Experiences	✓	✓	✓

Figure 7: The ontological location of phenomena following Bhaskar (1978: 13)

This schematic representation shows that the domain of the Real encompasses both the Actual and the Empirical. At the level of the Empirical or the Actual, we are therefore only experiencing or observing *some aspects* of the domain of the Real. As a critical realist researcher, I acknowledge that the data allow me only to reach the levels of the Actual and the Empirical and that my task is to abduct and retroduct in order to explore the level of the Real and to account for what can be observed or experienced in other domains.

In this case, I will begin at the level of the Actual by describing the events and practices that can be understood as comprising the Cultural Entomology course. I will then move on to make claims about the emergence of this particular form of service-learning at Rhodes University. In order to do this, I will draw on Tim's observations and experiences captured in interview data.

In order to further explore the level of the Real, I will employ Archer's (1995) construct of *analytical dualism*. Although I acknowledge the ongoing interplay between structure, culture and agency, for analytical purposes and for the purpose of organising this chapter, I will discuss each domain separately. I will first discuss the domain of structure and then the domain of culture before moving on to look at the role of agency. It is in this final section that I will focus more closely on interplay.

7.3 The Actual

7.3.1 The Cultural Entomology Course

As already indicated, the Cultural Entomology course is offered in year four, as part of the Honours degree programme. The service-learning component of the course involves students engaging learners in a number of schools in Grahamstown in a series of activities focusing on insects and the possibilities the study of Entomology opens up in terms of a career. Reciprocity in learning is ensured by students researching learners' socially constructed understandings of insects and their role in the environment by means of a qualitative research project.

The duration of the service-learning course is four weeks with learning activities structured in four integrated components: classroom instruction in the form of theoretical seminars named, in the course guide, as 'advanced tutorials', field visits to identified schools taking part in the service-learning project, reflective journals and, lastly, a group research project. As a result, at the level of the Actual, events comprise, *inter alia*, a series of seminar-type teaching sessions, visits to service-learning settings, students writing in their reflective journals, students meeting together in order to plan activities with the school learners, and, finally, students working on the joint research project.

Subject area	Specific outcomes	Assessment criteria
Scope of cultural entomology	1. Describe the scope of cultural entomology	Relate entomological knowledge to areas of culture Give published examples of cases involving cultural entomology
	2. Explain the relevance of cultural entomology	Explain published examples of the application of cultural entomology
Cultural research strategies	3. Explain the factors affecting interviews. 4. Explain the factors affecting questionnaires. 5. Describe the elements of service-learning	Explain the factors affecting interviews. Explain the factors affecting a questionnaire survey. Describe the idea of service involved in service-learning. Describe the type of learning involved in service-learning
Cultural entomological research through service-learning	6. Plan and conduct a service-learning activity	Design a service-learning activity. Collect data through a service-learning activity
	7. Analyse qualitative data	Analyse data from a service-learning activity
	8. Reflect on research activity	Document reflections on direct experience of Service-learning
	9. Document cultural entomological research	Document a research project about cultural entomology

Figure 8: Learning outcomes and assessment criteria in Cultural Entomology

Figure 8 provides information, taken from the Course Guide, about learning outcomes and assessment criteria.

From a critical realist perspective, these outcomes and criteria can be seen to describe some of the experiences and events that Tim, the designer of the course, hopes to provide for his students. Outcome one, for example, ‘Students will be able to describe the scope of Entomology’ envisages students’ experience of the breadth of the field.

In the interview, Tim explains the reasons for the development of the course. Previous experience with his postgraduate students engaging with communities for research purposes indicated that, although the students had knowledge about insects, which was valuable to the community members, they lacked basic training in qualitative methods of data gathering and analysis. Typically, students in the natural sciences are exposed to research methods that have a quantitative bias. However Cultural Entomology exposes students to fieldwork that requires qualitative data gathering and analysis techniques to be used so that richer understanding of problems encountered by community members can be gained. As a result of his experience as a supervisor of postgraduate research, it became apparent to Tim that projects involving direct engagement with communities required research methodologies that augmented qualitative methods located in the dominant positivist orientation to knowledge. The Honours year, which can be seen as the entry level of postgraduate studies in South Africa, seemed the most appropriate level to introduce qualitative research methods in a meaningful way.

Tim’s experience as a supervisor of postgraduate research therefore appears to have been instrumental in his decision to develop Cultural Entomology as a course incorporating service-learning.

This course meets Bringle and Hatcher’s (1995) criteria defining service-learning and distinguishing it from other forms of community engagement activities (see Figure 2 in Section 1.2.2). The third and fourth outcomes in Figure 8 above give the indication of the way service-learning is infused in a credit bearing course. The first part of the definition provided by Bringle and Hatcher that service-learning should be a ‘credit bearing educational experience, where students participate in organized service framed by reciprocal goals whilst engaging in reflective practices to gain further understanding of course content and simultaneously broadening an appreciation of the discipline while enhancing (their) sense of civic responsibility’ (1995:112) is thus met.

Tim explains how he developed and implemented this course ‘on my own. Nobody interfered, nobody made input and nobody asked me what I was doing’. This is significant in illustrating the level of academic autonomy enjoyed by Tim.

The lack of interference or input enjoyed by Tim is an indication of the way he, as a senior academic, was able to exercise agency. He does however mention that he received input from colleagues from the Centre for Higher Education Research, Teaching and Learning

(CHERTL) at Rhodes University, who brought expertise in curriculum design to the development of the course. He also consulted the Community Engagement Directorate (CED), to assist in matching a community as an appropriate partner.

In relation to the level of the Actual, therefore, the development of the Cultural Entomology course can be conceptualised as a series of events involving Tim, as he sat and planned the course, and sometimes colleagues from other units/centres in the University. As my analysis will later show, lack of involvement on the part of Tim's colleagues is the result of cultural and structural conditions at play in his Department.

Having described the Cultural Entomology course at the level of the Actual, I will now move into an analysis of the Real in order to explore the conditions that allowed it to emerge in this form.

7.4 The Real

7.4.1 The domain of structure

In this section, I draw on the description of structural conditions existing at global, national and institutional levels discussed in Chapter Six (see Section 6.3). The following diagram attempts to capture the focus of my analysis. In order to analyse the case, I need to draw on the analysis of global, national and institutional conditions provided in Chapter Six.

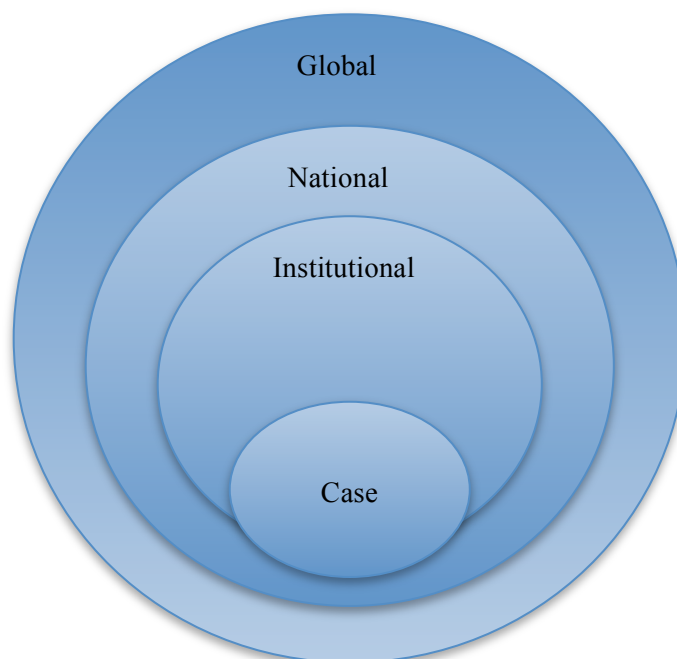


Figure 9: Levels of analysis

7.4.1.1 The knowledge structure of Entomology

As I indicated in Chapter One, according to Biglan (1973a,b), disciplines can be categorised according to a typology of ‘hard pure’, ‘hard applied’, ‘soft pure’, ‘soft applied’. One way of interpreting the typology would be to see each category as distinct. During the analysis it became apparent that it would be more useful to conceptualise the typology as a continuum, which draws attention to how these categories overlap. This means that disciplines such as Entomology extend over boundaries between categories rather than sitting neatly between clearly delineated boundaries. Figure 10 attempts to illustrate the boundary space I interpret Entomology as occupying.

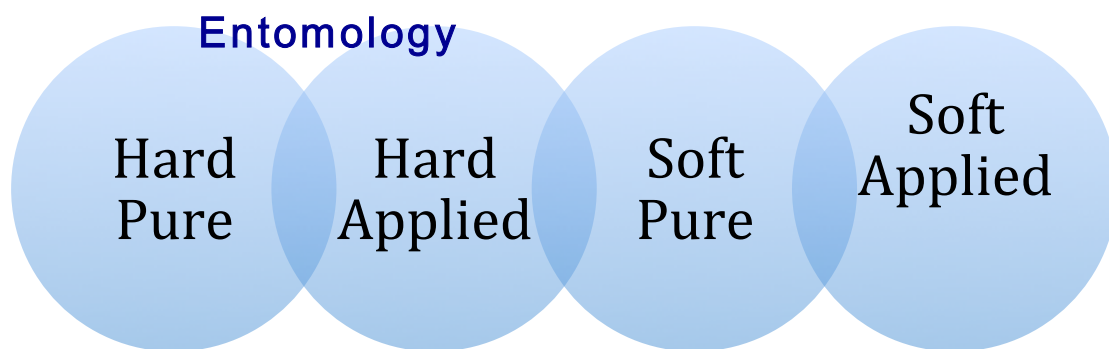


Figure 10: Typologising Entomology

Entomology is a branch of Zoology specifically focused on the study of insects and would essentially be classified in the ‘hard pure’ category. However, according to Tim:

Entomology is the study of insects and insects are animals so Entomology is a branch of Zoology. It has a very strong tendency to be very applied ...

As a result, Entomology can be seen to occupy the boundary between ‘hard pure’ and ‘hard applied’.

Disciplinary typologies are useful in gaining initial insights into the broad categories in which disciplines can be clustered. However, Trowler (2011) warns against using typologies blindly because of the risk of essentialising. In relation to the theoretical framework of my study, essentialising could distort the analysis which seeks to account for the effects of the interplay

of structures and mechanisms at the level of the Real on the emergence of events and practices. That said, I do find Becher and Trowler's (2001) work useful because of the way they elaborate on Biglan's typology by introducing the concept of disciplines as 'tribes', thus combining the dual worlds of the social and the cognitive.

Disciplines in the 'hard pure' category have a 'cumulative, atomistic structure, [and are] concerned with universals, simplification and a quantitative emphasis' (Neumann, *et al.*, 2002:406). The knowledge structure of disciplines in the 'hard pure' category is hierarchical:

This form of knowledge attempts to create very general propositions and theories that integrate knowledge at lower levels, and in this way show underlying uniformities across an expanding range of apparently different phenomena (Bernstein, 1999: 162).

Entomology is a typical natural science discipline where 'knowledge grows by the evolution of ever more abstract and general propositions' (Muller, 2008:6). In addition '[p]ragmatic, know-how via hard knowledge' (Neumann et al, 2002:406) features strongly in Entomology and is particularly visible in the postgraduate curriculum where the emphasis is on knowledge that 'grows through an accretion of practical solutions to particular problems' (Muller, 2008:7). It is thus my assertion that Entomology can be seen to straddle into the 'hard applied' category.

Where a discipline straddles into applied knowledge, it is then expected that students should be provided with opportunities to take scientific knowledge into practical learning situations. Layton (1993) reminds us that applied knowledge is effectively scientific (hard pure) knowledge *reworked* in practice and is thus qualitatively different from theoretical knowledge. Crucial to the production of applied knowledge is reflection on theory in practice. It is this reflection that allows theoretical knowledge to be transformed into applied knowledge.

It can thus be seen that the nature of the knowledge structure of Entomology is conducive to the use of a pedagogic tool like service-learning.

7.4.1.2 The disciplinary community

In his discussion of Entomology, Tim goes on to say:

Because these things are animals they get to be exciting in all sorts of positive ways ... I think it is the usual science, so it is the usual logical, positivist, it is empirical, it is experimental.

Tim and his colleagues in the disciplinary community regard themselves as practising scientists. The minimum entry requirement into the disciplinary community is usually a doctoral degree, especially in research-intensive universities.

Earlier in this chapter, I alluded to the need to examine both the social and the cognitive in any consideration of a discipline. Bernstein's (1999) description of hierarchical knowledge structures allows us to begin to understand the social as well as the cognitive. According to Bernstein (1999:162), the quest to integrate knowledge at the lower levels of hierarchically structured disciplines into ever more overarching theories and principles means that such disciplines exhibit a higher social connectedness (1999:162). Muller (2008:13) goes on to note that this quest allows for far greater collaboration in teaching, research and supervision and therefore academics 'have far more time for research, which they see as their fundamental mission as academics'.

Bernstein (1999) and Muller (2008) offer explanations of hierarchal knowledge structures and their effects on a disciplinary community. Structures external to the discipline are also important in shaping these communities, however. South Africa has six Science Councils²⁷ through which research is funded. Each has a particular focus area attracting academics to apply for research funding in order to advance knowledge within the discipline. The Councils most aligned to research in Entomology are the National Research Foundation²⁸ (NRF) and the Agricultural Research Council (ARC) although other global funding institutions, such as the Wellcome Trust, support research in the discipline.

According to Henkel (2005), funding criteria frame academics' individual agendas. For example, criteria may push applicants for funding into making explicit the connections between their research and its applicability to societal challenges (Henkel, 2005: 161).

As in many other South African universities, research activities are prized at Rhodes University, a phenomenon that is strongly driven by the state funding formula for higher education as a lever for transformation (see 6.2.3 and 6.3.1).

²⁷ The six statutory research councils in South Africa are: the National Research Foundation, the Agricultural Research Council, the Council for Scientific and Industrial Research, the Council for Geosciences, the Humans Sciences Research Council, the Medical Research Council.

²⁸ The National Research Foundation (NRF) is the funding agency for the human and natural sciences. The NRF is legislated to provide funding to universities for research on the basis of the broad socio-economic and political agenda of the state (Bawa & Mouton, 2002:301).

As Tim notes, the effect of funding and the discourses that emerge in relation to funding structures clearly shape academic priorities in his Department:

In this Department emphatically, research is the staff priority. It is what we are recognized for. It is what we get funding for. If we were to swap over to teaching, we would probably not get the same funding.

The primary focus of staff members in the Department at Rhodes University is knowledge production and therefore a strong research identity is forged within the disciplinary community. This then aligns with the location of the Department in a research-intensive institution that rewards research productivity.

It is not that teaching is dismissed but rather that research is prioritised. As Tim notes:

I am not going to say they are not interested in teaching because I think they are but I also think that they are getting to that point of their careers where they do not have to teach and it is not their primary interest. The person who took over from the Dean²⁹ is brand new in the system [and] is still finding their feet. They are enthusiastic and motivated but my impression is that they also do not see teaching as their first priority.

Given these observations, it is probably fair to claim that, in Entomology, the emergence of service-learning is constrained as a result of the interplay of the knowledge structure of the discipline with funding structures and discourses privileging research because of prestige that accrues from its production.

7.4.1.3 The Entomology curriculum

For the purposes of my analysis, I am locating curriculum as a structure at the level of the Real.

According to the curriculum information offered to students on the Faculty of Science website, Entomology is classified as a “two-year major” meaning that Entomology courses are offered at year two and year three only (<http://www.scifac.ru.ac.za/scideg.htm>).

The curriculum model of a general formative degree leading to double or, in some cases, triple majors has been maintained at Rhodes University, although most other universities in

²⁹ The former Head of Department was elected as Faculty Dean and left the Department for the Faculty Office. As a result, a new Head of Department needed to be appointed.

the country have chosen to develop modularised curricula leading to very specific outcomes. This means that, in comparison to modularised curricula, curricular elements (i.e. courses) are larger. At undergraduate level, the smallest course consists of 15 credits³⁰.

One of the arguments Rhodes University made for maintaining this curriculum structure is that it enables students flexibility in structuring their degrees. Figure 11 offers but one example of how the students can structure a Bachelor of Science (BSc) degree.

YEAR	SEMESTER 1				SEMESTER 2			
1	ZOO 101 ³¹	CHEM 101	COM SCI 101	BOT 101	ZOO 102	CHEM 102	COM SCI 102	BOT 102
2	ZOO 201	ENT 201	CHEM 201	GEOG 201	ZOO 202	ENT 202	CHEM 202	GEOG 202
3	ZOOLOGY 301		ENTOMOLOGY 301		ZOOLOGY 302		ENTOMOLOGY 302	

Figure 11: An example of curriculum leading to dual major in Zoology and Entomology

As already indicated, in order to graduate with a BSc degree, students need to achieve 360 credits, 240 of which need to be shared equally between two majors as illustrated above³².

The focus on of my discussion here is on the four Entomology courses (ENT 201, ENT 202, ENT 301, ENT 302). ENT 201 comprises two foci: *Professional Entomology* and *Insects and Man* while ENT 202 has a single focus *General Insect Biology* (ENT 202). These two courses introduce students to fundamental areas of study, which focus on understanding the function of insects and how those functions impact on human and biological ecologies. The curriculum is divided and weighted in a structure that requires students to demonstrate knowledge in

³⁰ A credit in this instance is understood to be equivalent to 10 notional learning hours. Students are required to complete 120 credits per year if they are to complete a 360 credit degree in the regulation time of three years.

³¹ See Appendix C for elaboration of course codes.

³² See <http://www.scifac.ru.ac.za/scideg.htm> for details

three areas: declarative knowledge, theoretical knowledge, laboratory knowledge and knowledge that is applied during compulsory field trips.

The two third year courses require the study of *Applied Insect Ecology* (ENT 301) and *Environmental Entomology* (ENT302). The emphasis in year three is the application of insect ecological theory in order to investigate the role of insects in environmental problems in fields such as agricultural entomology, apiculture, weed bio-control and forensic entomology. In year three students are required to demonstrate competence in similar fashion as in year two. However, one marked difference in year three is that students are expected to complete a research project.

Tim points to what he sees as the added value of using research projects as teaching tools:

Projects achieve quite a suite of things simultaneously. The first thing is that it actually teaches project management skills.

He sees projects as a means of providing alternatives for those students who do not to continue with postgraduate studies and who seek employment with an undergraduate BSc degree – hence his focus on project management skills. Tim explains that without a postgraduate science degree, BSc graduate employability takes a shift away from the traditional understanding of a science career requiring a doctoral qualification:

[You] see, the hidden assumption is that we are all heading for some academic competence and perhaps because all of the lecturers have trodden the path all the way to a PhD we see that as the natural way forward.

Once students have satisfactorily completed the BSc undergraduate degree, they are eligible to register for postgraduate studies starting with a one-year Honours degree. This is followed by a two-year Masters degree and then, finally, a doctoral programme usually requiring three years of full time study. The Honours degree is of interest to this study as this is where service-learning is used as a pedagogic tool.

Tim points out that there are ‘only five Departments in the country which teach Entomology and most of them do not seem to teach it as a major any more’. Unlike Rhodes University, other universities have chosen the route of integrating Entomology into the Zoology or Agriculture curriculum. An important consequence, therefore, is the decline in numbers of students specialising in Entomology. This lack of expertise is then exacerbated by the fact that, in those universities where Entomology is studied, ‘the applied side’ is often emphasised.

Tim also attributes the decline of Entomology as a discipline in other universities to the modularised curriculum model that most universities (apart from Rhodes University) adopted. Yet, despite these differences between Rhodes University and other universities offering Entomology Tim also identifies similarities:

We all use the same texts books so we are all comparable certainly at second year level. We are all comparable to overseas curricula too.

This capacity to be comparable across different universities is typical of a natural science discipline where, at the lower levels, students are introduced to the hierarchically structured declarative knowledge of the discipline.

In the interview, Tim explains how the general study of Biology is structured in natural science disciplines like Zoology and Entomology as well as how it is structured at Rhodes University.

The one is to cut it up into organisms. So you get people who are insect people, you get Analogists, Ornithologists, Ichthyologists, and you get Botanists. That is the way Biology is sliced at Rhodes. The other way to do it is disciplinary. You will have Physiologists, you have Ecologists, you have Taxonomists and they cut across all of the organisms but they have their disciplinary speciality.

He further explains that the curriculum follows these two broad ways of structuring the knowledge field:

Again there are only two ways to structure the curriculum, the various groups of insects as examples of things and the other is disciplinary and then you exemplify the discipline in terms of particular groups of insects.

Chapter Three introduced Bernsteinian concepts that I draw on in this chapter as analytical instruments. Bernstein's analytical tools are useful in providing an understanding of the inner logic of the pedagogic practice of Entomology described by Tim. Curriculum decisions related to the structuring of the discipline, described above, indicate that the contextual features (hierarchical rules) take precedence and thus have more influence than the temporal rules (selection, sequencing and pacing). In other words, curriculum decisions are made with the view that students gain understandings of insects within particular contexts. Therefore, the selection of insects impacts on what the lecturer wants the students to discover about insects as well as the time needed for students to grasp these concepts.

Generally, it would appear that in the Department of Zoology and Entomology at Rhodes University, curriculum decisions are not centralised. Rather, each lecturer is responsible for

making decisions regarding curriculum content (a point to which I will return in Section 7.4.2.2 below in relation to a discourse privileging academic freedom). However, an opportunity for a systemic, coordinated effort to develop curricula presented itself in the early 2000s as a result of calls for curriculum restructuring at a national level. These calls emanated from a number of national and global discourses emphasising the need for applied knowledge in a globalised economy discussed in Chapter Six of this thesis.

At a national level, one of the results of these calls was a shift towards modularised, vocational curricula accompanied, in some instances, by the relocation of academics from traditional Departments into interdisciplinary Schools. At Rhodes University, such calls were resisted vociferously, a phenomenon evident in the retention of the general formative degree. Within the Department of Zoology and Entomology, however, the discursively constructed call for modularisation and semesterisation was interpreted as an imperative:

We were compelled to re-organise our modules into semesters and in the process of gathering those together different semesters got done in different ways. It might have been me that actually decided we were just going to have four-week modules and that was just it and people just had to fall in.

Henkel (2005a) draws from research investigating policy impacts on academic identities to argue that disciplines influence academic identity more than institutional context. Disciplinary communities, to a large extent, determine what is considered paramount, valued and thus prioritised as worthy of endeavour.

As I have indicated above, Entomologists exhibit high levels of social connectedness characteristic of hierarchical knowledge structures. In addition, in the Department at Rhodes University, they also enjoy high levels of academic autonomy. Although policy changes push academics to ‘adopt changing identities, to comport themselves differently in their relationships with each other and the outside world, and to prioritise changing values’ (Moore, 2003b: 12), if the sense of disciplinary identity and community is strong there is a greater chance of withstanding such pressure. An example of this can be seen in the superficial application of semesterisation in the Department of Entomology at Rhodes University. Although the push to semesterise and modularise was actually misunderstood, according to Tim the actions of staff members in the Department were not based on sound academic reasoning but rather involved a tokenistic adherence to perceived pressure. As a result, the decision to reorganise was:

... partially an arbitrary decision but it was for logistical reasons and not for academic reasons. [It] also spreads the lecturing load more easily.

As well as resulting in changes to workload, the curriculum development processes of the early 2000s also resulted in the identification of courses and modules that might better be positioned in other Departments. This then further reduced the teaching load of staff in the Department.

It is possible to claim that the equitable sharing of the work load afforded by semesterisation provided Tim with the time to be able to experiment, by drawing on a discourse of alternative pedagogy.

Given the focus on research within the Department and the hierarchical knowledge structure of the discipline focusing on the need for students to engage with declarative knowledge at the bottom of the curriculum structure, it is not surprising that the Entomology curriculum has been relatively enduring and stable over the years. According to Tim:

Entomology has provided us with a curriculum that has been handed down; even when people retire the curriculum still persists.

This stability arguably allows staff to focus on research, which is, in any case, their priority.

7.1.3.4 Timetable

The Rhodes University timetable organises lecture periods into forty-minute time slots, a standard practice in most South African universities. Within forty minutes concepts are introduced, deliberated, compared and, where appropriate, critiqued. Transmission style teaching is well suited to this type of timetable in a Department like Tim's where:

Overwhelmingly we tend to treat knowledge as declarative. So it is what you know ... it is the kind of thing you can pull out at quiz night. Not many people get to that state where they recognise that knowledge is really about models of experience.

The Entomology undergraduate curriculum tends to emphasise teaching as mainly imparting declarative knowledge thus making the transmission mode an appropriate pedagogic method.

According to Tim, using a pedagogic tool like service-learning requires a more flexible timetable, not bound to forty-minute time slots:

The students need a lot of flexibility in their timetable and their time is modularised into forty-five minute lectures and you can not do service-learning in forty-five minutes, it just does not work.

He maintains that service-learning is suited to the development of procedural knowledge and that forty-five minute slots are not sufficient to allow for this.

The Cultural Entomology course emphasises the role of a flexible timetable in enabling the implementation of service-learning. In the course, students are introduced to significantly different pedagogy than that experienced in the undergraduate degree. The shift they encounter is not confined to the level of intensity and complexity expected at postgraduate level, since there is also a strong emphasis on the application of knowledge. This requires students to engage with and learn from interactions beyond the relatively closed systems of the classroom and laboratory. Students are introduced to concepts that shift their engagement from a predominant emphasis on declarative knowledge towards procedural knowledge. This requires appropriate scaffolding and a more fluid timetable in order to organize different kinds of teaching activities.

7.1.3.5 Funding

I locate funding as a structure at the level of the Real in terms of the schema I have adopted for the analysis of my data. Initially, the Cultural Entomology module was funded externally. The Finnish government had provided funds for a number of competitive grants, administered by the South African Council on Higher Education (CHE), intended to enhance teaching and learning. Tim wrote a proposal and won a grant to fund his work. In writing a proposal, he was able to draw on a qualification in teaching and learning which he had earlier completed at the CHERTL. Arguably, understandings gained as a result of completing this qualification allowed him to write a proposal focusing on teaching and learning that enabled him to win a competitive grant.

Tim claims that the costs involved in running a service-learning course are not high:

Our costs are very few. They have to do with transport, which is not a huge budget ... Part of the curriculum has been to create posters and posters cost about R400 each. We generated four of those the last time we ran the module which means you need a budget of ... well, you are looking at R1,600 to R2,000 a year.

Financial implications do not seem to be onerous and therefore the low budgetary requirement constitutes an enabling factor in the infusion of service-learning; for Cultural Entomology as well as for other Departments within the Faculty, that have submitted funding proposals for service-learning activities.

7.4.2 The domain of Culture

As I have indicated in Chapter Two, I understand the domain of culture to be discursively constituted.

In an open social system such as a university context, agents have a variety of discourses to draw on to rationalise the choices made in relation to academic practice. In each case, I have been able to identify a set of discourses available to academics in the domain of culture. The academics in the four disciplines used as exemplars are situated within a particular university and national context and therefore inevitably certain discourses will be common across the cases. These are taken up slightly differently depending on the discipline and Departmental context. In addition to these common discourses, discipline specific discourses can be identified in each case.

7.4.2.1 Valuing Research

Rhodes University's status as a research-intensive institution is aligned with Departmental culture in the case of Entomology in that research activities are constructed as paramount, thus allowing for the identification of the *Valuing Research* discourse. This discourse signifies far more conscious and purposefully deep engagement with research processes and, as a result, pedagogy is constructed as a secondary concern. The research-driven discourse is further supported through institutional discourses privileging research because of the rewards, which accrue from funding.

The observation that research is often privileged over teaching is not unique to Rhodes University as research in the field of teaching and learning shows similar trends elsewhere (see Nightingale and O'Neill 1994; Gosling 2001; Trowler 2004 and D'Andrea & Gosling 2005).

In the Department of Zoology and Entomology, the discursive privileging of research activity (including supervision which is arguably constructed as a form of research scholarship) is influenced by the disciplinary culture, which strongly indicates that research activity is what matters and merits academics' attention. According to Becher and Trowler (2001), Henkel (2000) and Moore (2003), disciplines are the primary source for academic identities and, if emphasis is placed on research in the discipline, then it seems a fair observation that other core responsibilities such as teaching and community engagement may be perceived by academics as distractions from the main objective of generating knowledge in their disciplines.

Muller (2008) describes how hierarchically organised knowledge structures, such as those in the natural sciences, allow for the efficient production of research. Academics working in hierarchically structured disciplines tend to share common ontological and epistemological orientations (usually positivist) and this allows them to co-operate in producing ever more overarching theories to account for phenomena lower down in the pyramid structure. The reliance on declarative knowledge lower down in the structure (as indicated by Tim above) also means that academics can substitute for each other as teachers or, as is more often the case, bring in postgraduate students to teach for them. Thus structure works with culture to lead to the emergence of research related events.

In the interview, Tim expressed the opinion that funding structures at a national level and reward structures at an institutional level encouraged the low value ascribed to teaching in certain Departmental cultures. At Rhodes University, the privileging of research is also discernible in the senior management structure. The University has a post of Deputy Vice Chancellor Research and Development. The most senior post directly responsible for teaching, however, only exists at the level of Dean.

The understanding that teaching involves simply ‘getting the information across’ is well entrenched in the Department. Tim’s comment that the ‘standard lecture is the easy way and especially after twenty years it is easy to deliver the undergraduate product, [so that is] probably the way it is going to stay’ provides insights into why service-learning is discursively constructed in his Department as an alien pedagogic tool.

7.4.2.2 Academic Freedom

Although service-learning is constructed as an alien pedagogy in a Department where research is accorded enormous value, the dominant systemic discourse of *Academic Freedom* is an important mechanism that allows academics to exercise agency in making independent choices shaping pedagogic and research activities. Tim provides the follow example:

Our third year curriculum is very much driven by what the staff are interested in. It is divided up into six modules, which are a month long each, and basically we have got two each and we just teach what we think is relevant and exciting and we take into account what everyone else is teaching, but pretty much we do what we want to do. Which is exactly why, for example, I have a module in Forensic Entomology in third year; there is not another one in the whole of Africa.

This account signals Tim’s experience of academic freedom. Discourses privileging *Academic Freedom* are dominant at Rhodes University. It is important to note that the

freedom to circulate and pursue independent research is related to what Boughey (2009) terms a ‘discourse of trust’ at South African research-intensive universities. This discourse constructs academics as all sharing the same values and as a result, as ‘trustworthy’. As a result, the discourse of trust accords academics the freedom to get on with academic work without interference from management.

7.4.2.3 Teaching as Common Sense

The data for this case illustrate traditional and dominant conceptions of teaching and learning in the Department of Zoology and Entomology, with the exception of one contrary example, the Cultural Entomology course.

If regular and vigorous curriculum reviews can be taken as an indication of a Department’s deep engagement with teaching and learning concerns, then the fact that little appears to have changed since the introduction of Entomology as a discipline at Rhodes University in 1961 is indicative of a seeming lack of engagement. Such lack of engagement, I would argue, could suggest that teaching and learning in this Department is constructed as ‘common sense’, which Gramsci (1971: 322) explains as ‘the uncritical and largely unconscious way of perceiving and understanding the world that has become “common” in any given epoch’.

However, ‘common sense’ conceptions of teaching and learning do not necessarily indicate less commitment nor do they mean lecturers in this Department do not take teaching seriously but rather that the high levels of social connectedness characteristic of the knowledge structure erode the need to interrogate teaching.

7.4.2.4 ‘Legitimate’ Teaching and Learning

Cultural Entomology is one way of broadening students’ understanding of their discipline and of cultivating insights into how knowledge is constructed differently outside the confines of their disciplinary and academic communities. Tim is aware that, by the time students get to Honours level they have established ideas of what count as *Legitimate Teaching and Learning* experiences, couched in the traditions privileged by the natural science community. From a theoretical perspective, these ideas can be understood to be discursively constituted in the domain of culture and to impact on the practices students are willing to engage in in order to learn and on what they expect of their teachers.

In the Cultural Entomology course some of those traditions are challenged and, as a result, a level of resistance on the part of students can be discerned. As Tim points out:

I am not convinced that the students entirely appreciated the experience. I think they saw it as good medicine but nevertheless medicine.

The idea that alternative approaches to teaching are ‘medicine’ is probably exacerbated by the fact that Tim is the only academic in his Department who has expressed an interest in doing anything other than what has become established practice. In many respects, this can be seen to place the service-learning course in a precarious position.

7.4.3 The domain of Agency

Tim reflects on the general perception of Entomology:

People have preconceptions of what Entomologists do. Yes, and they also have a whole load of baggage about what insects are. Because it is mostly about how to kill insects - that is mostly how people view insects. So that already gives you the kind of the cultural orientation people have of my subject, which is that I am mostly there to relieve them of problems.

However, negative connotations are not the only challenges Tim perceives in relation to his discipline. As the following extract from the interview shows, common sense understandings can also be problematic:

Biology in general . . . people think they know it because they are biological. They feel they can relate to the subject, they feel some sort of rapport. Insects are things that they know and have feelings about and that they have some experience with.

Forensic Entomology, which is an area of interest for Tim, provides instances where entomologists’ professional and expert knowledge is viewed with more positive regard:

The role of an expert witness is quite well defined in law. You will always have someone who has a problem and inevitably they will have no background in Entomology so they have a problem and they cannot solve it because they do not have the background and you do.

Earlier, Entomology is described as ‘very applied’ – a phenomenon which would suggest that the discipline has opportunities to communicate valuable information and findings beyond the borders of the disciplinary community.

A link between the knowledge that Tim and his colleagues produce and the world beyond the discipline can be tenuous. Following Bernstein, for this knowledge to be of use to the broader community, substantial recontextualisation is required to allow it to transfer from the site of

production (in the university) to a site of use in the community. From an insider perspective, however, it would seem that although Entomology has the potential to be highly applied, within the Department the primary audience of the knowledge produced is understood either as the discipline community or ‘the people who are doing a job and have a vested interest’. Tim is clearly an outlier in this situation.

I will now return to Archer’s work on agency (see Section 2.4.3) to explore the way Tim has exercised his agency to facilitate the emergence of the service-learning course in Entomology.

It is clear that Tim was already what Archer terms a ‘social actor’ before the service-learning course was developed. He had attained the position and stature of full professor in the academic hierarchy, was curriculum co-ordinator in the Faculty, and was a recipient of Vice Chancellor’s Distinguished Senior Research Award.³³

Archer (1996) reminds us that Structural Emergent Properties (SEPs) and Cultural Emergent Properties (CEPs) can exist without the knowledge of agents and can remain dormant unless agency is used in relation to them to allow for emergence to occur. In more general terms it is evident that Tim draws on Personal Emergent Properties (PEPs) as a social actor to enable him to design and implement a course utilising service-learning as a pedagogic tool in a context that would appear to be largely constraining.

Significantly, he does this in ways that account for the particular form the service-learning course takes in this Department. As I have already indicated, the course involves students in a research project focused on the collection of ‘cultural’ information about insects. Tim justifies the course by identifying their need to develop understandings of qualitative research methodologies. In doing this, he clearly draws on the discursively constructed value system of the Department and the University which privileges research. This then allows him to mitigate some of the constraining effects of the knowledge structure and the practices associated with it.

Tim also draws on elements of the knowledge structure in order to effect emergence. Entomology is ‘applied’ and can demonstrate relevance to the world outside the academy. The way the hierarchical knowledge structure functions to require less time and effort for conventional teaching arguably also allowed him to benefit from economies of efficiency at undergraduate level in order to devote time to curriculum development at postgraduate level.

³³ This award is made for both the quantity and quality of research.

Significant, too, is the fact that the service-learning course only emerges at postgraduate level. Tim realised that the undergraduate timetable did not allow for the flexibility required for a service-learning course and thus focused his efforts at postgraduate level.

In order to develop the course, Tim can also be seen to have drawn on discourses privileging academic freedom. He notes that he developed the course ‘on his own’ and, what appears to have been the case is that his colleagues simply allowed him to get on with doing so not only because of dominant values privileging freedom but also because teaching is not their main interest.

As a social actor, Tim differs from other full professors in the Department because of his interest in teaching and curriculum. As indicated above, he had completed a postgraduate qualification in teaching and learning and was able to draw on theories (understood as discursively constructed in the domain of culture) as well as the structure of the qualification itself to act in informed ways in developing the course. This also allowed him to develop a proposal, which won him a competitive grant to run the course – although funding itself does not appear to be an enormous issue.

7.5 Conclusion

Figure 12 attempts to capture the emergence of the service-learning course in Entomology diagrammatically. As the Figure is read, it is necessary to remember that the Actual and the Empirical are embedded in the Real (see Figure 7 above) and that pictorial separation of the various levels in the diagram is essentially artificial.

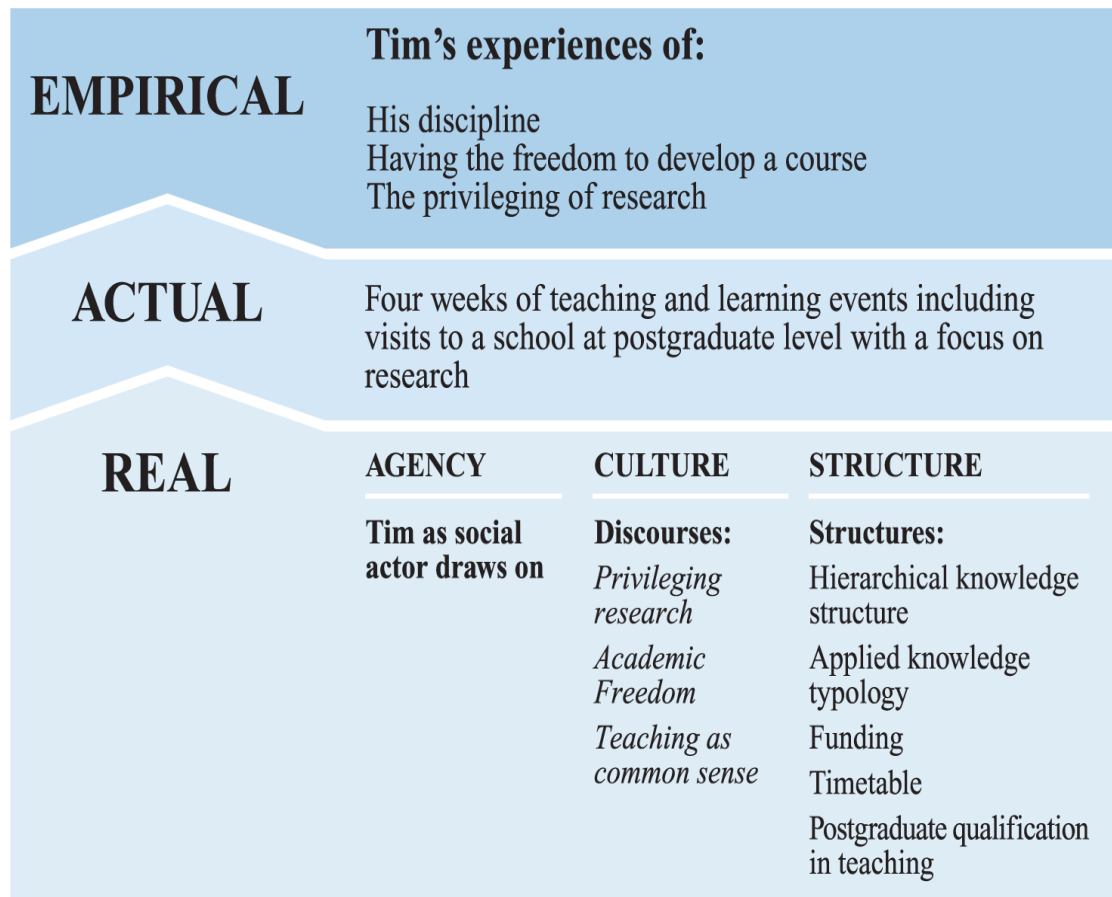


Figure 12: Entomology concluding diagram

Chapter Eight: The case of Environmental Science

8.1 Introduction

The analysis of this case draws on an interview with a senior academic (anonymised as ‘Mona’) nominated by her colleagues to represent the Department of Environmental Science. It also draws on both the Departmental and Science Faculty websites. The main curriculum documentation is in the form of a guide for the *Environmental Monitoring and Monitoring Systems* (ENV301) course, which becomes the focus of discussion for this case. This course, offered in the third year of study towards a Bachelor’s degree will be discussed in detail.

Analysis of the course shows that, although it is not described by the Department as a service-learning course, it nevertheless meets criteria related to service-learning in that it is (i) credit bearing (ii) offers students an opportunity to participate in organized service (iii) uses reciprocal goals to shape the service (iv) requires students to engage in reflective practices in order to gain further understanding of course content and (vi) simultaneously broadens an appreciation of the discipline while (vii) enhancing a sense of civic responsibility (see Bringle & Hatcher’s (1995:112) definition of service-learning cited in Chapter One of this thesis).

Environmental Science is a relatively young Department at Rhodes University, originating out of a cross-Departmental programme located in the Science Faculty. Since becoming a fully-fledged Department in 2002, the four permanent academic staff members have committed themselves to answering the growing demand for suitably qualified environmental professionals able to tackle environmental management and sustainable development³⁴.

The practices of the Department emerge from conditions and mechanisms at play at the level of Real. I draw on interview data representing experiences at the level of the Empirical to extrapolate to the level of the Real. Of importance in providing insights into the conditions enabling and constraining the particular form that service-learning takes in this case, are the practices of the Department observable as events at the level of the Actual. My task is to provide plausible explanations of the enabling and constraining conditions accounting for the form in which service-learning emerges in a ‘hard applied’ discipline such as Environmental Science.

³⁴ See <http://www.ru.ac.za/static/Departments/environsci/> for more details.

My exploration of the case of Environmental Science thus begins by describing the *Environmental Monitoring and Monitoring Systems* course. My discussion then moves into an analysis of conditions at the level of the Real.

The case of Environmental Science thus follows the same structure that I have used to explore other cases in this study. The use of Archer's (1995) concept of 'analytical dualism' allows me to focus on outlining the structural, cultural and agential conditions, and then to explore the interplay between them.

8.2 The case of Environmental Science

As I have already indicated, my analysis of data related to this case reveals that, although no courses are explicitly named as forms of service-learning, one course offered by the Department of Environmental Science meets the criteria associated with this form of curriculum.

The philosophical stance underpinning Environmental Science courses is that of approaching environmental challenges holistically by employing interdisciplinary expertise. The expectation is that students should engage with contemporary environmental challenges theoretically as well as in a practical and applied sense. Mona indicates that the complex nature of environmental issues requires combined multiple approaches:

So, I guess we are trying to get people who go out into the world and address these complex environmental problems that we are facing, and in order to address those complex questions we have actually got to be taking a kind of holistic approach and we have got to be working across disciplines and building a picture together with other people about the causes and effects of some of the issues that we are facing.

Environmental challenges are thus multi-dimensional and need to be viewed from a range of perspectives thus making it important for students not only to interact and work in teams with each other, but also to work with other teams drawing on knowledge and expertise existing beyond the borders of the academy. It is my contention, therefore, that expectations of the discipline align with service-learning criteria.

This alignment is highlighted in year three, where students register for two courses, *Environmental Monitoring and Monitoring Systems* (ENV 301) and *Integrated Environmental Management for Sustainability* (ENV 302).

A key component of ENV 301 is the collection and analysis of environmental data, which is the core of any environmental monitoring system. The emphasis in ENV 302 is the

development of applied professional skills, coupled with rigorous analysis, to promote more effective environmental thinking and management (Departmental Undergraduate Course Guide, Appendix IV). My discussion will now focus on Environmental Monitoring and Monitoring Systems (ENV 301) as a course that meets service-learning criteria.

8.3 The Actual

8.3.1 The Environmental Monitoring and Monitoring Systems Course

In critical realist terms, and following the approach taken for the case of Entomology, I have conceptualised the ENV 301 course as a series of events including lectures, practicals, assessment tasks, the provision of feedback on tasks and so on associated with teaching and learning. These events occur at the level of the Actual and students' and staff's experiences and observations related to these events are located at the level of the Empirical.

ENV 301 has seven outcomes that culminate in a practical year-long research project. In critical realist terms, it is possible to conceptualise these outcomes as experiences and events at the levels of the Empirical and the Actual. The outcomes capture aspirations of what staff who designed the course hoped students would experience (for example an experience of understanding the way project management principles can be applied in the field) and what they hoped to be able to observe as events (for example, students making decisions about data analysis techniques). The outcomes are:

- An understanding of the practical application of project management principles
- A critical understanding of monitoring principles and approaches
- An understanding of the practical application of environmental monitoring approaches
- An ability to differentiate between various data analyses and presentation techniques
- An ability to apply data analyses and presentation techniques to their academic work
- A questioning approach that objectively appraises current dogma and popularist projections
- An ability to conduct self study and synthesis of relevant information (ENV 301 course outline)

Teaching and learning activities consist of formal lectures, work-integrated learning, problem-based learning and practicals. In addition students are expected to join in discussion

forums posted on the University's Moodle-based learning management system known as (RUconnected³⁵).

The theory introduced in class centres around the design and implementation of environmental monitoring systems appropriate at different spatial and temporal scales and which integrate the biological, social and economic components of environmental systems (ENV 301 course outline). These are investigated and reflected upon by means of the research project. Students are supplied with a separate detailed description of the expectations of the project in a Departmental guide entitled *Practical Project 3rd Year's: A State of the Environment Report (SoER) for Grahamstown* (Appendix V).

I draw on the (SoER) as well as the course outline for ENV 301 to illustrate my assertion that in this course service-learning principles are used despite the fact that service-learning is not cited directly as a pedagogic tool for teaching and learning in this course.

For the purposes of the research project, students are divided into groups or project teams that are generally balanced in their composition in terms of gender, disciplinary background (based on the degree for which they are registered) as well as socio-cultural backgrounds. Mona explains some of the processes thus:

So they might go out and do some measurements on the vegetation and they will interview some people and see how they are using the commonage and that kind of thing. So it will be, we try and make those third year projects span the three focus areas of social, economic and ecological.

The project teams are required to answer questions, such as the following:

1. What is happening in the environment (what are environmental conditions and trends)?
2. Why is this happening (human and natural causes)?
3. What will happen if no action is taken (significant health, economic, social and ecological implications of these environmental changes)?
4. What are the opportunities and constraints (what are the implications of society's response)?

Thirteen areas of specialization are offered which can be linked to the umbrella imperatives of biological, social or economical challenges to the environment. Students are expected to answer the above questions in groups within their chosen sub-discipline of Environmental

³⁵ RUconnected is the learning management system used by lecturers at Rhodes University, built on open-source Moodle software. The system is intended to allow lecturers to extend interactions with students beyond confines of formal teaching time.

Science. They are supervised either by Mona or one of her colleagues and, where necessary, draw on the expertise of colleagues outside the Department.

The project is a year-long course, so for the whole year they do a lot of the work independently, so you only meet with them every now and again to monitor progress. There are certain milestones that they have to meet along the way ... a sort of literature review and a project proposal, and various progress reports along the way and that kind of thing. But it is really driven largely by them with support from staff, as you would support a post-grad student in the same sort of way.

The projects thus require students to investigate real world environmental issues. They review the literature, collect data, and provide appropriate solutions to problems or raise awareness of a particular environmental challenge amongst those directly involved in, or influenced by, the challenge.

From a critical realist perspective the practical work required for the projects are events at the level of the Actual. The projects are framed by the 'Systems Approach' adopted by Mona and her colleagues involving 'looking at the interaction between ecological systems, social systems and economic systems'.

Generating solutions to real-world local environmental challenges is an endeavour with benefits for both students and local communities. Thus, this aspect of the ENV 301 project is congruent with the first principle of service-learning, i.e. that the goal of the engagement between the student project and the community site should be of mutual benefit. The project carries marks which contribute to the overall course mark which means that the second principle of service-learning, that a course should be credit bearing, is met. Close examination of the ENV 301 course guide and the SoER reveals that there is no explicit mention of reflective practice. Documents are thus silent on this particular service-learning criterion (see 1.2.2). Arguably it would be possible to develop, and thus extend, existing tasks in the course to strengthen this criterion especially given that the oral presentations and written reports require students to reflect on what they have done and learned.

My discussion now moves into what Bhaskar (1975) refers to as the 'intransitive domain', the level of the Real, in order to provide plausible answers to the questions of where, how and why service-learning emerges in curricula designed by the Department of Environmental Science at Rhodes University.

8.4 The Real

8.4.1 The domain of structure

Chapter Six provided an exploration of the general structural conditions existing within the HE context at an international, national and institutional levels thus laying the foundation for discussion of each case. What follows in this section is therefore an exploration of the structural conditions impacting on the emergence of service-learning in Environmental Science

8.4.1.1 The knowledge structure of Environmental Science

In terms of Biglan's (1973a,b) typology, Environmental Science can be categorized as a professionally based discipline.

Environmental Science appears to focus on finding practical solutions to environmental challenges and thus has an applied focus. These practical solutions are underpinned by drawing on 'hard pure' enquiry, using inductive and deductive reasoning to provide generalizable explanations. Thus Environmental Science can be categorized as a 'hard applied' (Biglan, 1973a,b) discipline because it is classically 'concerned with mastery of the physical environment and geared towards products and techniques' (Neuman, Parry & Becher, 2002:406). In this respect, Environmental Science can be seen to have similarities to the Entomology case, discussed in the last chapter.

According to Becher and Trowler (2001:36), 'hard applied' disciplines place emphasis on 'master[ing] the physical environment using heuristic approaches' drawing on hard knowledge to produce know-how. Categorization of disciplines into the typology is useful as a guide rather than as an all-conclusive account of all 'hard applied' disciplines. An attempt to provide an all-inclusive account would ignore Archer's caution to avoid 'downwards' conflation (see 2.4).

I turn to Bernstein (1996, 1999, 2000) for analytical assistance in exploring this case further. It is clear from Mona's description of her discipline noted earlier, that, according to Bernstein, Environmental Science would be classified as a region because of its extensive emphasis on and concern with the external world (in this case exemplified by engagement with environmental challenges) as well as because of the way it draws on recontextualized

singulars³⁶ (such as Biology, Anthropology, Chemistry and Economics) in order to provide answers and solutions.

Academics draw on disciplinary knowledge structures to develop curricula. Curriculum development can be influenced by a number of factors such as how the institution structures degree offerings.

8.4.1.2 The Environmental Science curriculum

As I have already indicated, the Environmental Science curriculum at Rhodes University is organised across four semesters of the programme leading to the Bachelor's degree. Students are offered the choice of registering for Environmental Science courses with the intention of carrying these through as majors in the following degree programmes: Bachelor of Science (BSc), Bachelor of Economics (BEcon), Bachelor of Journalism (BJourn) or Bachelor of Arts (BA). The alternative is that students register for Environmental Science courses as electives in year three of a degree programme where other majors have been chosen. This would not be the case for the service-learning course, however, which appears in year three.

Keeping in mind the dual major structure adopted at Rhodes University, students can choose from a number of different options to structure their degree:

[Environmental Science] aims to attract students from a variety of academic disciplines. Candidates who wish to major in Environmental Science should, however, structure their degrees around a specific sub-discipline of Environmental Science, for example biological resources, earth resources, water resources, environmental policy, environmental economics, or people and the environment. Their choice of additional subjects at the second and third level should thus reflect a specific focus (<http://www.ru.ac.za/static/Departments/environsci/>).

Environmental Science courses start in year two of Bachelor's programmes, and therefore students need to obtain credits at year one level as prerequisites. Regardless of the specialisation chosen within Environmental Science, the following courses are required as prerequisites: Biology 101 (Cell 101), (Geography 1 (EAR 101 and GOG 102) and Botany 1

³⁶ Knowledge structures classified as singulars have a 'specialized discrete discourse with own intellectual field, protected by strong boundaries and hierarchies' (Bernstein, 2000:52).

(BOT 101 and 102). For students registered for a BA or wanting to focus on ‘People and the Environment’ as an area of study, Anthropology (ANT 101) is an additional prerequisite.

Figure 13 illustrates how students might choose to structure a BSc degree majoring in Environmental Science with a focus on Earth Resources.

YEAR	SEMESTER ONE				SEMESTER TWO			
1	EAR ³⁷ 101	CHEM 101	BOT 101	CEL 101	GOG 102	CHEM 102	BOT 102	ZOO 101
2	GOG 201		ENV 201	BOT 201	GOG 202		ENV 202	BOT 202
3	GOG 301		ENV 301		GOG 302		ENV 302	

Figure 13: An example of a curriculum leading to a dual major in Environmental Science and Geography

As a course, ENV 301 is located within a wider curriculum structure featuring other courses, which draw on different disciplinary types. As my analysis below will show, this is significant in relation to both the conditions enabling emergence and the form the course itself takes.

It has already been noted that Environmental Science is a region. Regions tend to be largely influenced by the external social world and thus tend to find more legitimacy and recognition outside the boundaries of the academy. The case of Environmental Science is no different. For instance, the expertise of the Department is recognised and legitimised by many requests for commissioned research. However, in a research led institution such as Rhodes University, the funding derived from this commissioned research then contributes to positive regard the work of Mona and her colleagues. As a result, a particular disciplinary identity is shaped and enhanced within the University.

³⁷ See Appendix C for elaboration of course codes.

8.4.1.3 Funding and research

Funding is an influential structure discussed in detail in 6.2.2. One of the areas where the influence of funding is particularly evident is research. It is my contention that funding, and the research it enables (conceptualised as research events at the level of the Actual) works with the discursively constructed privilege afforded to research within the University as a structural condition supportive of the trajectory of this Department. Mona and her colleagues focus on research and therefore receive the rewards and recognition from the University thus further encouraging and propelling them to do more research.

Research output is crucial at Rhodes University because subsidy earned from research is critical to its financial sustainability (see 6.2.2 for more detailed discussion on the impact of the funding formula). Research outputs provide subsidy from the DoHET, which funds both teaching and research. As individuals or in teams, academics can also generate third stream income by doing contract research.

It is not only the financial gain that is important; research output also raises a university's profile and an elevated status attracts students and academics of the calibre desired by the institution. Rhodes University occupies a niche as one of five research-intensive universities (see Boughey 2009) in South Africa. It is critical for Rhodes University to assure this status by continuing to produce research of a high standard and by maintaining the number of research outputs. It stands to reason, therefore, that Departments and individual academics that contribute to the research output receive rewards and recognition for this. At Rhodes University, this is in the form of promotion, prestigious research chairs and various awards such as the annual Vice Chancellor's Research Award. This Department certainly contributes to the institution's status as a research-intensive university:

We are a tiny Department, there are four of us - but we bring millions of rands into this university. So that brings us recognition, that helps fund our students, and helps build linkages with other organizations around the world and so on. So, I think that is acknowledged and recognized.

In keeping with its designation as a region, the concerns of research in the field of Environmental Science are derived from environmental challenges emerging in the world of work. Environmental challenges extend to areas beyond the boundary of the academy and this has opened up funding opportunities beyond those traditionally accessible by other disciplines in the Science Faculty.

Because regions have an outward facing orientation, they are able to access many funding opportunities that are not open to other disciplines in the Science Faculty. Thus, academics in

this Department are able to bring in more money from commissioned research and research grants than many other colleagues in the Faculty. Chaplin³⁸ is a senior colleague in the Department and has recently been appointed to prestigious research chair, funded by the South African Research Chairs Initiative (SARChI)³⁹. The status which will accrue to the Department as a result of this Chair opens up the possibility of even more funding.

Funding provides Mona and her colleagues with opportunities to contribute to the knowledge production of the discipline while simultaneously contributing to finding solutions to problems outside disciplinary and academy communities. In addition, funding for research commissioned by bodies outside the academy increases the opportunities for Mona and her colleagues to bring in more revenue⁴⁰ by writing in academic journals. This publication, along with the funding attached to it, is then further recognized and rewarded within Rhodes University.

For us, because our field applies, because the world is worried about what is happening, there are masses of opportunity for money, you have to work hard to get it, but you can. We publish a lot; we are a very productive Department. We bring in masses of money.

In as much as research activities are privileged and supported, the production of the next generation of graduates committed to an understanding of how to engage with environmental challenges also receives a fair amount of attention. I revisit the notion of producing the next generation of graduates in various sections later in this chapter as a notion embedded in an instrumentally motivated (see 8.4.2.1) discourse enabling the emergence of ENV301.

It is my contention that the focus on, and respect accorded to, research in the University as a whole and the Department in particular leads to the form of the ENV 301 course as research-based. In many respects, the colleagues in the Department have simply continued to do what

³⁸ Chaplin is a pseudonym. Chaplin has full professor status and is the most senior academic in the Department with extensive teaching and research experience.

³⁹ The Ministry of Science and Technology's SARChI programme awards sixty prestigious research chairs across the South African HE system and, in the 2012 round of funding, RU was the recipient of five of these. Chaplin has been appointed to a chair in 'Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods'.

⁴⁰ The funding formula for higher education in South Africa awards one 'subsidy unit' to each publication in an accredited journal. The amount of subsidy units vary on an annual basis but a single unit brings in excess of R100 000 – a substantial amount of money in South Africa in 2012.

the disciplinary structure leads them to do and have drawn on what funding for research prompts them to do in order to produce a course which calls upon students to conduct research.

8.4.1.4 Departmental size

Academics in the Department of Environmental Science make individual curriculum decisions pertaining to the courses they teach. However, those decisions are shared at ‘roundtable discussions’. Due to the fact that there are only four full time academic staff members, this necessitates that Mona and her colleagues collaborate with each other in the form of substitute- and team-teaching within and across courses offered in this Department. Mona and her colleagues are committed to ensuring that the programme stays true to the integrated Systems Approach framing the courses taught. The Systems Approach is elaborated on later in this chapter when the discussion moves to the discourses identified in the cultural domain that lead to the emergence of the ENV 301 course.

Environmental Science conforms to norms influencing curriculum decisions subscribed to within the Faculty and, indeed, across the University. As Mona explains, ‘Obviously within courses we play to people’s specialties’. This seems to be a practice followed by Departments across the University. Various reasons for this practice can be identified, but in Environmental Science the practice appears to be related to size. Mona and her colleagues use this strategy to balance the teaching and research load:

I would say that it is not just to give us more time for research but the students need a little bit of variety as well. Otherwise, just imagine having the same lecturer for the whole semester.

What happens, therefore, is that different members of staff step in to offer subsections of courses depending on areas of expertise and interest.

It would therefore appear that the size of the Department contributes to the form of the ENV 301 course in that it is taught by all members of the Department in a co-operative and collaborative fashion drawing on particular forms of expertise.

8.4.1.5 Time and location

In the interview, Mona responded to a question about constraints in the following way:

I mean money is just one resource ... time is another one. Because, we are not a big Department you know, just finding time to do everything is tough.

Although Mona signals finance as a constraint, later in the interview she points out that this can be overcome by drawing on a financial structure existing in the University. All Departments have access to what are termed 'resale accounts' which result from fees charged to students for the provision of handouts and other learning materials. Any excess after learning materials have been provided can be used to contribute to the costs of other learning activities. In the case of Environmental Science, a simple funding structure appears to allow for the costs of the service-learning course to be covered.

The time challenge is not as easily solved, however, as experiential learning requires flexibility with regard to the time in which it is offered. In addition, preparation for this kind of teaching requires more time than the traditional transmission mode lecture. Mona explains that:

It takes more time because you have got to be more flexible and ready to respond to things that you are not necessarily anticipating.

The level of unpredictability that is involved in projects that are influenced by social and human interaction becomes the focus especially because this is likely to be the first research project of this scale experienced by students. In addition, the project is likely to be their first opportunity to combine the use of qualitative and quantitative research methods in order to provide workable solutions to problems identified by communities.

As I will attempt to show later in this chapter, however, that discourses on which staff members in the Department draw mitigate the constraining effects of time because they allow academics, both individually and collaboratively, to draw on values and ideals which make them more willing to sacrifice time for service-learning.

Geographical location can be an additional constraint. As Mona points out, Rhodes University's location within a small town⁴¹ limits opportunities for service-learning:

I think that will be one of the challenges, if we have lots of service-learning happening, and lots of students wanting to talk to people in the University, or people in the Municipality, it is eventually something that you need to think about. Who you

⁴¹ Grahamstown falls within the Makana Municipality. The most recent and reliable statistical data from GeoNames geographical database indicates that Grahamstown population is 91548.

are interacting with, how many people you are interacting with, and are these people having too much pressure on them to respond to the students?

Perhaps an obvious solution to geography as a constraining structure would be to draw on the vision and mission of Rhodes University's commitment to the Eastern Cape and Southern Africa and therefore to offer experiential opportunities beyond the boundaries of Grahamstown. This option would require more than the exercise of agency on the part of the Department to push the comfort zones of geographical distance since it might also require them to commit to using income derived from commissioned research to fund service-learning and would also require more time because of distances involved.

My discussion now moves to the domain of culture.

8.4.2 The domain of culture

As I have already indicated in Chapter Two (see 2.4.3), my understanding is that the domain of culture is discursively constituted. My analysis of the domain will therefore identify discourses contributing to the emergence of the ENV 301 course in the particular form that it takes. Following Archer (1995), I indicate the discourses (which, as mechanisms possess cultural emergent properties (CEPs), on which agents draw in order to pursue 'projects' which address 'concerns' they have identified.

8.4.2.1 Instrumental Discourses

Examination of the data shows that the practices of academics in the Department of Environmental Science, can be seen to emerge from *Instrumental* or *Integrative Discourses*. These terms are understood by drawing on the work of Gardner⁴². Thus, the *Instrumental Discourse* is taken to indicate motivation that emphasises the attainment of a goal for either social or economic reward. The primary motivation is therefore propelled by a desire for tangible goods or the social status, which can lead to the attainment of such goods.

An example of an *Instrumental Discourse* is one that centres on *Valuing Research*⁴³. I have already identified research and funding as mechanisms within the domain of structure leading to the emergence of the ENV 301 course and the particular form it takes. However, research

⁴² Gardner, in turn is influenced by Mowrer (1950) (cited in Larson-Freeman & Lang 1994).

⁴³ This discourse was also evident in the case of Entomology.

is also valued discursively. As a result, I am identifying an instrumental discourse relating to research and the value accorded to it because of the monetary and other returns it brings both to the University and the Department. Staff members in the Department draw on this discourse to contribute to the emergence of a course, ENV 301, which has research as its focus.

They also draw on this discourse in justifying time spent on developing funding proposals for research projects. Before the recent award of a SARChI chair, Chaplin had already gained enormous recognition for his research outputs. The award of the chair adds credibility to his research endeavours – particularly at proposal stage where a ‘name’ is understood to lend authority. Other staff members may collaborate in order to produce the research, but the research itself becomes more ‘valuable’ because of the association with one highly ranked and esteemed individual. Staff members value their colleague’s contribution to research and to the promotion of their own research and this, in turn, contributes to the overall valuing of research within the Department and to the emergence of the course in its particular research-focused form.

In the Environmental Science case, two other instrumentally motivated discourses are identifiable. The first I have labelled *Instrumental One* (I^1) indicating that this discourse is associated with the valuing of tangible goods. The I^1 discourse constructs Environmental Science as a discipline, which provides graduates with a head start in the job market. This discourse is related to others, which privilege the role of higher education in the production of ‘knowledge workers’. It can also be associated with an understanding of higher education as a private, rather than a public, good.

Instrumental Two (I^2) has a similar focus on functional reasoning. However, it differs from I^1 in that the focus is not on personal material gain, but rather on gain for the public good. I^2 draws on the need to preserve the earth’s depleting resources and stresses the needs of the next generation to be educated and sensitised about the urgency of sustainable development. I^1 and I^2 both construct disciplinary study *as a means to an end*.

The I^2 discourse is particularly evident in the interview with Mona who notes:

We actually need to do something more about being more green in the way we do things, not just bunny hugging environmentalists, you know. We have actually got to build a culture into our students that resources are not infinite. We want to send more rounded people out into the world, just like we want people who are not racists we want people who also, you know, think about the environment.

8.4.2.2 Integrative Discourses

The interview is also replete with evidence of *Integrative Discourses*. Integrative motivation is characterized by an intrinsic desire on the part of the individual to integrate herself within the ideals and values of a community or group with which the individual seeks to be associated.

Knorr-Cetina (1982) states that what is at stake in academic disciplines is value. However, she argues that it is not ‘the value of some produce, but the value of the scientists themselves’. This is evident in the emphasis Environmental Science places on a set of values that count towards what academics in this field view as related to success – the production of graduate students with a particular orientation towards and relationship with the environment. One of the concerns or projects of agents in the Department is thus the production of the next generation of what Maton (2007) terms the ‘ideal knower’. The quintessential Environmental Scientist, according to Mona, has a sound foundation in a specialist discipline, however, but also takes on a particular ‘understanding of the world around them’. This understanding entails acknowledging different worldviews from which emerge different value systems that Environmental Scientists acknowledge and respect regardless of whether or not they agree with them. This acknowledgment is critical to successful interaction in interdisciplinary research groups mandated to solve complex socio-ecological issues.

In the interview, Mona draws on a discourse related to the need for a shift of consciousness on the part of Environmental Scientists from emotional responsiveness (captured by the phrase ‘bunny hugging environmentalists’) to an understanding of what is involved as a scholarly endeavour:

We are environmental scientists and we do not take the emotional route, we take a scientific approach to what we do.

In drawing on this discourse, Mona can be seen to be countering what I have identified as the *Inauthentic Science* discourse in the Faculty in which Environmental Science is located. The Science Faculty is predominately constituted by ‘hard pure’ disciplines. It would appear that some academics from these disciplines perceive the realm outside the ‘hard pure’ category as ‘*Inauthentic Science*’, thus provoking what could be seen as derogatory labelling of colleagues from the Department of Environmental Science. Even more perturbing is the fact that these academics feel so sure of their judgement that they are able to voice such labelling in public. Mona reports an incident from a public forum thus:

One of my colleagues here said that one of our esteemed Professors in the Botany Department, referred to Environmental Science as ‘bunny huggers’. I do not know if you picked it up but he was furious.

Mona goes on to note:

Obviously we do not have the respect of some people who think that we are not doing ‘real’ science.

Maton’s (2007) concept of the epistemic device is useful in providing insights into the experiences described by Mona above. Within a university context, Maton contends (drawing on Bernstein 1977, 1990, 1999) that there is a struggle between intellectual fields over control of the epistemic device (elaborated in 3.3). I would argue that the interdisciplinary approach adopted by the Department of Environmental Science is seen by cognate disciplines to be in competition with the traditional strongly bounded approach to which they are accustomed. The traditional understanding of the rules that govern knowledge in the hard pure sciences is seen as challenged by new understandings of ways in which knowledge is created and reproduced as a result of the interdisciplinarity of the Environmental Science. The response is to protect and to try to maintain control of the epistemic device by discursively negating the work of Mona and her colleagues in order to withhold recognition and deny legitimacy to the contribution they make to scientific enquiry.

Colleagues resisting an interdisciplinary approach draw on the *Inauthentic Science* discourse. This resistance is likely to be strengthened if those promoting the *Inauthentic Science* discourse can draw on their own senior positions in the academic hierarchy.

Those who advocate for interdisciplinary inquiry draw on integrative discourses as well as discourses valuing collaboration. In order to counter their argument, in the case of Environmental Science, they also draw on their research productivity an indication of their academic status within the University and academic hierarchy. What would appear to be the case, therefore, is that a discursive war is being fought over the epistemic device.

How does this account for the emergence of service-learning in this particular case? It is plausible to assert that the key to the emergence of service-learning depends on who controls the epistemic device - the antagonists or advocates of interdisciplinarity.

If advocates of interdisciplinarity, such the Environmental Scientists, control the epistemic device, then the expected outcome would be an increase in courses using service-learning as a pedagogic tool. However if antagonists controlled the epistemic device then the containment of courses using service-learning as a pedagogic tool could be expected.

A reason why courses like ENV301 emerge despite the constraint of who controls the epistemic device is the Rhodes University structure where Departments are fairly autonomous. From the interplay between this autonomous structure and the dominant constraining discourses emerges a course like ENV301.

Other integrative discourses can be identified in the data. One of these I have named the Rhodes University (*RU*) *in Society* discourse. This discourse promotes the ideal of situating the University closer to broader society, thus answering the call for universities to be a partner in a new social contract (see 1.2). Rhodes University's vision and mission indicates a commitment to sharing expertise with society. Although the Eastern Cape⁴⁴, where Rhodes University is located is mentioned specifically, this commitment is not limited to local communities. This is linked to a wider social justice agenda in the University acknowledging social inequities, stressing those resulting from apartheid in particular.

The *RU in Society* discourse identifies a role for the University in addressing inequities in its core functions. In the realm of teaching and learning, for example, efforts are made to accommodate black working class students who do not meet the University's usual entrance requirements by providing them with access to an 'Extended Programme with an Integrated Foundation Phase'. These programmes provide more time and more tuition to students who are understood to have been structurally disadvantaged by the legacy of apartheid.

In the Environmental Science Department, I also identify a *Collaboration* discourse.

Bernstein (1999, 2000) reminds us that disciplines like Environmental Science emerge from sufficiently weakened disciplinary boundaries with the result that new fields, termed 'regions' are formed. He goes on to say that regions are influenced by the external world so their focus extends beyond the discipline. For Mona and her colleagues, this focus on the external world involves responding to environmental and sustainable development challenges thus creating the need to develop curricula, which will allow students to respond to these challenges. The ever-changing nature of challenges means that course content needs constantly to be reviewed.

⁴⁴ South Africa's political Geography divides the country into nine provinces. Although some challenges, such as the need to provide equitable access and success in education for all citizens, are national, in some provinces, like the Eastern Cape, these challenges are more acute as a result of structural conditions inherited from apartheid regime (see 6.2.1)

The need to review content in an on-going fashion does not imply a lack of stability, however, as Mona notes:

Some of the courses, you know, have been fairly long standing and we have relooked at those and rethought them. At one point they were even swapped around.

However because of the pressures, interest and attention paid to environmental issues, opportunities to incorporate topical challenges in the curriculum occur and, as a result, the content evolves:

So [we draw] examples from the latest publications, 2009-2010 publications, [and] other materials that come across our desk. You know like now this year when I teach climate change I am going to have to do the Copenhagen Conference. So you have got to be constantly updating things.

The process of updating and keeping the material current is the responsibility of individual lecturers. However, in this Department the curriculum process followed entails that the changes are not made at the level of the individual but rather involve a sharing of practice amongst colleagues. Mona and her colleagues participate in regular curriculum review processes where the changes at individual course level are reviewed in order to see how they integrate and enhance the programme as a whole.

But we do meet every, twice a year for our kind of long Departmental ‘Indabas’⁴⁵. We do look at the course evaluations and get feedback from that, and we discuss it. [We ask] Is this too difficult at second year level? Are they grasping this? But yes, it is important that they get it at this early stage. So we do talk about it and reflect on our courses and see if any changes need to be made. And then, every year, we update our courses all the time, because in our field there is no textbook, and the field’s changing so rapidly.

This extract from Mona’s interview provides an insight into the level of depth and *Collaboration* that is employed during the curriculum review processes.

Significant here, however, is the fact that the field of Environmental Science does not have textbooks and is thus reliant on current journal publications to inform teaching. The availability of a textbook might lead to more rigid course structures. Instead of drawing on a textbook, colleagues in the Department use up-to-date journal articles to inform their course

⁴⁵ Indaba is a Zulu word for ‘news’, used in South African English context to constitute a meeting or a forum where different views on a topic are shared.

design – a practice, which emerges from the ever-changing nature of a field that is constituted by environmental and sustainability challenges. The point I am aiming to make here is that, although the metaphor of tribes and territories (Becher & Trowler, 2001) is a useful guide to understanding disciplinary structures as well as cognitive and cultural styles, this framework alone does not adequately account for all mechanisms constraining and enabling service-learning infusion in a discipline. The emergence of a course using service-learning needs to be accounted for by exploring the interplay of structural and cultural conditions at the level of the Real. Ever-evolving curriculum content could be identified as a constraining condition for the emergence of service-learning given how much time might be spent on preparation. However, my assertion is that, in this case, service-learning emerges because agents in the Department draw on a discourse which privileges *Collaboration* and University policy structures which promote the on-going review of curricula.

Academic Freedom is a strong discourse in the University as a whole and not only in the Department of Environmental Science. This discourse, which values the freedom of academics to teach and research in ways which are unimpeded by state or institutional control, is often drawn upon to justify and defend decisions made by individual academics, Departments as well as the University as a collective. The understanding is that although autonomous decisions can and should be made, the decision makers are still accountable to the disciplinary community as well as the academy as a community. In this way, the *Academic Freedom* discourse can be categorised as ‘integrative’. Significantly, this discourse allows the Department to defend the course against critique from the Faculty.

Valuing Pedagogy is another discourse evident in the data. This discourse privileges focused attention on pedagogical practice. This discourse, for example, values the provision of dedicated spaces on international conference programmes for critical engagement with pedagogical practices. I have located the *Valuing Pedagogy* discourse within the broader order of *Integrative Discourses* because it is indicative of a broader commitment to the way attention to teaching is linked to the broader ideals of Environmental Science.

8.4.2.3 Knowledge-related discourses

As I have already indicated, the ENV 301 course adopts what Mona terms a ‘Systems Approach’ in its design. As I have already indicated, I have conceptualised the course as a series of Events at the level of the Actual. The Systems Approach is thus captured in these events as well as in the experiences and observations of both staff and students in relation to these events. At the level of the Actual, the Systems Approach, as described by Mona,

involves capturing ‘the interaction between ecological systems, social systems and economic systems’ in teaching and learning events.

Mona’s explanation of a Systems Approach can be linked to Mode 2 knowledge production. Mode 2 knowledge is described by Gibbons *et al.* (1994) as ‘intrinsically trans-disciplinary, trans-institutional and heterogeneous’. In short, Mode 2 is ‘problem-solving knowledge’ (Kraak 2000:2). Mode 2 is said to be the result of globalization and democratization of access (elaborated in 1.2) and is thus credited to have had considerable impact on the structure and function of HE systems nationally and internationally.

Globalization placed new education and training demands on HE institutions in that it requires graduates who not only possess high levels of generalised skills sets but who are additionally able to ‘adapt to unpredictable and volatile global product markets and rapid technological change’ (Kraak 2000:5).

Mona and her colleagues draw on the Mode 2 discourse supported by the structure of the discipline as a region as a means of enabling the emergence of a course designed to offer students learning opportunities orientated towards solving contemporary problems facing society.

Mona and her colleagues also draw on the *RU in Society* discourse by encouraging ENV301 projects to focus on the less affluent areas surrounding Grahamstown. As members of the discipline they subscribe to the notion of Environmental Science as:

A mission-oriented discipline, meaning that it goes beyond just seeking knowledge for the sake of knowledge, it actually wants to apply that knowledge and make a difference in the world.

This clearly influences the decision to encourage students from a variety of disciplinary bases (actualised by successes at first year level) to register for courses in the Department thus indicating to students how different disciplinary knowledge can be used to address rapidly developing environmental challenges. For Environmental Scientists, the aim of producing well-rounded graduates as the next generation of problem-solvers involves a commitment to changing the mind-set of the students requiring them to shift to an understanding ‘that their point of view is not the only point of view’ involving; to achieve this aim involves the interweaving and balancing of different forms of environmentalism with an emphasis on social justice issues.

However, as much as inter-disciplinary (an aspect of Mode 2) knowledge production is valued and fiercely defended by Mona and her colleagues, the Department is situated within a University context that predominantly operates to produce Mode 1 knowledge which

privileges the canonical traditions of science and disciplinary-based research. Those agents within the University who are unconvinced of the value of inter-disciplinarity draw on the *Inauthentic Science* discourse to constrain the adoption of Mode 2 knowledge.

I draw on Gordon Graham's (2005) explanation of the limitations of inter-disciplinarity and Muller's (in Kraak, 2000) explanation of the emergent contradictory discourse from the Mode 1 and Mode 2 thesis to provide a plausible explanation of the dominance of this discourse.

Graham (205:189) questions the assertion, on which inter-disciplinary work is based 'that the insights of one discipline will illuminate the subject matter of another better than it could expect to do relying only on its own methods'. He argues that, if this were the case, then the levels of resistance in the academy would be far lower as a result of people having been convinced of the allegedly powerful methods of investigation that inter-disciplinarity offers.

Muller's (2000) assertion is that the rise in interest and influence of Mode 2 (as evidenced in various South African policy statements'⁴⁶ endorsement of Mode 2) is the misinterpretation that it is a *replacement* of Mode 1. Given the prevalence of this [mis] interpretation it is not surprising that inter-disciplinarity is negated, thus providing a plausible explanation for another one of Mona's reflections on the challenges of inter-disciplinarity.

Mona explains how objections to an inter-disciplinary approach are experienced by like-minded colleagues in the international arena:

It was fascinating ... reinforcing that people are doing the same things but facing the same sorts of barriers towards inter-disciplinarity. Barriers like actually giving recognition to the fact that this is the way to work. People saying if you become inter-disciplinary [you are] diluting things, you are not going to be focused and understand anything, you become a generalist.

Mona's reflection above illustrates Graham's point that academic communities are not entirely convinced of the methodological powers identified by proponents of inter-disciplinarity. Rather the accepted and dominant dogma is to use and improve traditional methodologies within disciplinary communities instead of crossing disciplinary boundaries.

⁴⁶ Jansen (in Kraak 2000) names the following policy documents as having been influenced by Gibbons *et al.*'s Mode 2 knowledge thesis: the Report of the National Commission on Higher Education, the *Education White Paper 3* on Higher Education (DoE, 1997) and the *White paper on Science and Technology* (DACST, 1996).

Inter-disciplinarity as practised by Mona and her colleagues is not a replacement of Mode 1, and thus the practice is in agreement with Muller's assertion that "Mode 2 knowledge production depends upon a sound Mode 1 disciplinary base" (Muller, 2000:80). This is evident in the adoption of a Systems Approach in Environmental Science, which requires students to draw on their disciplinary knowledge (Mode 1) to be able provide workable solutions (Mode 2) in their ENV 301 projects.

Mona admits that despite the existence of silos in the University, as Environmental Scientists, she and her colleagues have managed to find like-minded academics in other Departments who contribute to their work by sharing expert knowledge in the form of teaching sections of courses or by engaging in collaborative research activities:

When we looked at our annual report the one year, we had a lot of papers co-published with other Departments in this university. And I think that that is also beginning to be recognized, that we are interdisciplinary, and that we do work with these other Departments and that we do publish with them.

My claim is that one would expect that the emergence of a course such as ENV301 would be constrained because institutional culture privileges Mode 1 knowledge production. However, although Environmental Science draws heavily on understandings of Mode 2 knowledge, the emergence of ENV301 is enabled by the adoption of a Systems Approach, which draws on Mode 1 knowledge as a base. I would also argue that it is this interpretation of Mode 2 knowledge production that enables Mona and her colleagues to enter into collaborative teaching and research endeavours.

Embedded in Environmental Science's conception of a Systems Approach, then, is the valuing of Mode 1 knowledge. This can be understood as a discourse in the domain of culture at the level of the Real.

A key feature in teaching Environmental Science is the emphasis on valuing different knowledge:

We look at different knowledge systems, what science is relative to, say, indigenous knowledge. It is all part of changing their mind set and opening their minds to respecting the point of view of different people.

This emphasis is important in a context where higher education institutions are being pressured to demonstrate greater social responsiveness to the challenges and needs facing South African society. Discourses informing the work of the Department therefore prioritise the value of recognising, respecting and working with different knowledge systems to achieve results that balance the ecological, the economic and the social.

The acknowledgement of Mode 1 remains, however:

The students have their own specialist disciplines and I tell them that, and that specialist disciplinary knowledge is important, but at the same time it is [about] giving you a broader perspective and you can start to see where bits of the puzzle fit together.

Mona and her colleagues see incorporation of different knowledge forms as vital in achieving a holistic approach to solving complex environmental challenges. Using a Bernsteinian (1996) lens, what is at play here is the result of an integrated code. Influencing students to broaden their perspective translates to requiring students to shift their disciplinary identities to the background and embrace the underlining principle of the Systems Approach on which integration is based.

8.4.2.4 The discourse of Academic Interest

Graham (2005:81) points out that academics view research as an ‘essential part of their function’ as the academy perceives its duty to extend beyond the transmission of knowledge to the extension of knowledge. Research is often categorized either as pure or applied. In the former knowledge is sought for its own sake, while in the latter knowledge is gained for further ends (Graham, 2005). As discussed earlier (see 6.2.1) the transformation goals sanctioned by the government democratically elected in 1994 challenged the inward looking conception of research and substitute the demonstration of research activity that address the developmental needs of society.

In line with its Bernsteinian designation as a region, research concerns in Environmental Science are drawn directly from the challenges in the environment and are addressed using scientific methodologies underpinned by a social justice agenda. Service-learning places emphasis on the exchange of knowledge sharing between the specialized vertical discourse of the academy and the every day common sense horizontal discourse used by the world outside formal education (Bernstein, 2000). Service-learning is thus aligned to both the national imperative placed on HEIs to develop interests linked to the developmental challenges facing the country and, in this respect, it is also aligned with the outward looking interests shared by Environmental Scientists.

Within these outward looking interests, shaped by concerns facing the environment as well as the need for sustainable development, are subcategories in which Mona and her colleagues

each specialize. It is in these fields of interests that each lecturer intertwines both their research and focused teaching areas and this pursuit of specialization is encouraged:

Some of us are offering Honours courses. [A colleague] is offering in his area, which is in water and wetlands. I am offering one on climate change adaptation this year, and the rest of the group says, 'Fine, that is good, you offer your sort of specialisation.

The discourse of *Academic Interest* thus contributes to the form that service-learning takes in this case. The academics in this Department draw on the *Academic Freedom* discourse (noted earlier) enabling them to offer courses aligned to their specialist research interest that speak to the contemporary issues facing society. This, however, is affirmed by another discourse that values the role that academic interest can play in both research and teaching. The interplay between the *Academic Interest* discourse and the structure of the discipline as a region acts together to contribute to the emergence of a service-learning orientated course taught at year three.

8.4.2.5 Resistance to pedagogy

As already indicated, students enrol in Environmental Science courses in year two of a three year degree programme (see 7.2.3.4). According to Mona, students walk into Environmental Science courses with expectations they regard as a norm. For example, they expect lecturers to prescribe textbooks. Mona describes the resources she uses to teach students in her discipline:

I started lecturing second year and I said, 'Look, there is no textbook!' But what I try and do is I try and give fairly detailed slides to them and make them available on RUconnected because I feel that they need some substance.

From Mona's perspective, textbooks mediate students' learning experiences and, if none are provided, alternatives are required. In this Department the alternatives consist of PowerPoint slides posted on RUconnected and the seminal readings from journals. Students are receptive to these alternatives. However, it seems that they understand their task as learners as being simply to 'acquire' knowledge from PowerPoint slides and text book content. This is challenging because the Environmental Science courses are designed to provide opportunities for students to be co-creators of knowledge by connecting material from various sources including their own knowledge of the world:

I stress that the slides are not everything and that they have to attend lectures because we will be doing other things in the class - exercises. I will be talking and writing things on the board so the slides cannot substitute for actually attending the lectures.

Initially there is a gap between the expectations of lecturers and students regarding what is involved in the learning process. More specifically, these expectations appear to revolve around different understandings of where the source of knowledge lies. Students and lecturers draw on different discourses. Students not only have to grasp the shift from a disciplinary valuing of what constitutes knowledge but also have to value knowledge existing beyond the boundaries of the academy. In addition, they need to value their own role as problem solvers and constructors of solutions. As Mona points out:

I have had BSc students in the past who come up to me and say, 'Where are the facts?', 'What can I learn? I do not know how to learn for this course'.

I would argue that one of the reasons that the ENV301 course emerges only in year three of the curriculum is due to this initial clash experienced in year two. It probably would not be feasible to offer a course requiring a year-long project where one of the outcomes is to demonstrate 'An ability to conduct self study and synthesis of relevant information' (ENV301 course guide) when students have insufficient experience of the expected method and practices.

Thus, the claim is that the discursive clash between the lecturers and students in year two, when students first engage with the teaching approaches adopted by the lecturers, is not conducive to the emergence of service-learning type courses like ENV301. It would seem that after a year of induction into Environmental Science 'ways of being', Mona and her colleagues face less resistance from students.

Some of this resistance to new pedagogy is arguably reduced by students' understandings of the challenges facing the environment. Mona observes that:

... more and more students are keen to go all the way through and I think the reason is that the generation is seeing what is happening [to the environment]. [They are] going to have to deal with these issues, so it is very real to them.

8.4.3 The domain of Agency

Agents in disciplines such as Environmental Science, described as regions by Bernstein (2000), appear to be able to draw on a range of conditions in order to enable the emergence of service-learning. An important factor is that regions are predisposed to a focused interest

towards concerns beyond the academy and disciplinary borders. This then creates opportunities to design curricula requiring students to use content and methodologies learned within the hierarchal discourse of the academy to engage with the challenges experienced within horizontal discourse in community settings. Thus, the emergence of a course (ENV301) aligned to service-learning criteria is not surprising given the nature of the discipline.

As indicated earlier in this thesis, Archer (2000) distinguishes between ‘primary agents’ defined as ‘collectives sharing the same life chances’ (2000:263), ‘corporate agents’ and ‘social actors’. Primary agents can transform themselves into corporate agents in a morphogenetic cycle. My assumption is that members of the Department of Environmental Science arrived at Rhodes University as primary agents but, through interaction with each other and with dominant discourses in the University and in society and through their need to work within the organisational structure of the academic Department and faculty as well as within the geographical structure of a small town in a relatively isolated position, transformed themselves into corporate agents through reflecting on the circumstances in which they found themselves.

As corporate agents, members of the Environmental Science Department at Rhodes University draw heavily on what Maton (in press: 5) would term an ‘axiological cosmology’ – or a moral charging of beliefs and practices. These relate to a concern for the environment and for the need to develop professionals who can work with environmental issues. Part of this moral charging of beliefs involves a shared commitment to ensuring that a balance is sought and maintained between economic, ecological and social demands. This is then conducive to the emergence of a service-learning course, which allows students to work with all three areas in authentic settings.

At well as drawing on this axiological cosmology, members of the Department also draw on discourses related to research partly because of their need to attain and maintain status in a faculty that can be hostile to the status of their discipline as a region and to their axiological concerns. In order to do this, Chaplin’s status as a social actor⁴⁷ – a full professor with a prestigious record in research – is important to them. Members of the Department use this status (which is both cultural and structural) in research proposals and in order to further their

⁴⁷ Since this research was conducted, Mona has also achieved full professor status in a ‘double jump’ from senior lecturer in the personal promotions processes at Rhodes University. This means that she bypassed the rank of associate professor – a feat achieved because of both the quality and quantity of her research outputs.

own research endeavours. This concern for research then manifests itself in the *form* of the service-learning course, which focuses on the completion of a research project.

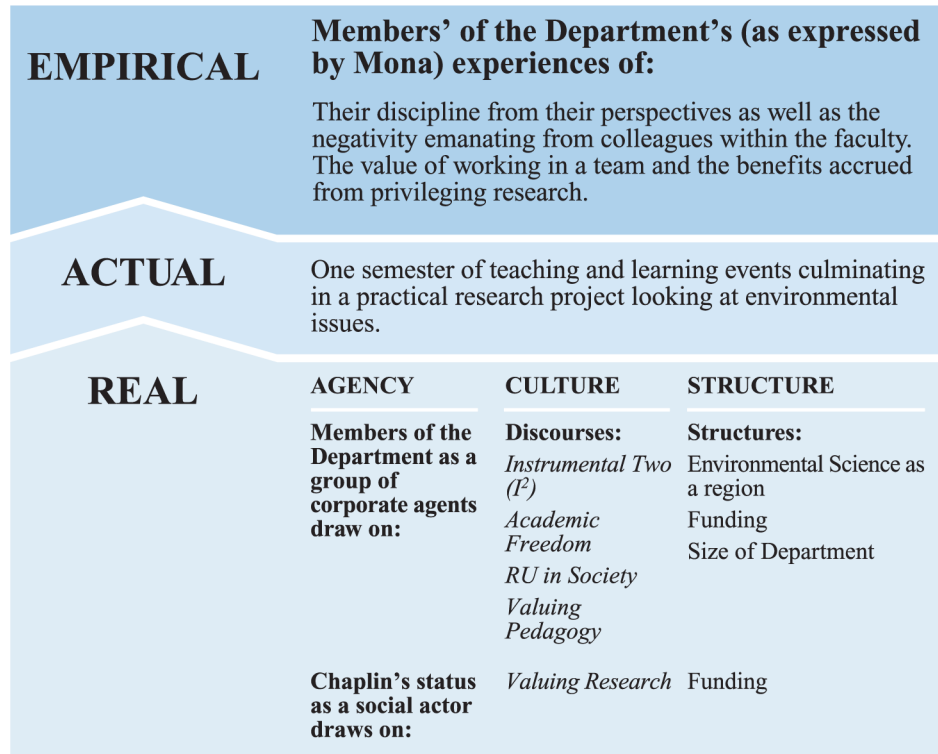


Figure 14: Environmental Science concluding diagram

Chapter Nine: The Case of Philosophy

9.1 Introduction

The Philosophy case draws on interview data as well as curriculum documentation available on the departmental website. This documentation includes the comprehensive *Philosophy Handbook* produced for students by the department (<http://www.ru.ac.za/philosophy/>). Interview data resulted from two interviews with participants identified by the Head of Department based on their level of involvement with a Logic course offered as an outreach project to learners at the Grahamstown Area Distress Relief Association (GADRA)⁴⁸ ‘Matric School’. The GADRA Logic course is explored in more detail later in this chapter (see 9.2).

The Philosophy curriculum presently does not offer any courses that use service-learning as pedagogic tool. The closest exposure that students in the department have to any sort of experiential learning is at Master’s level on a volunteer basis in the form of teaching the GADRA Logic course. The department does offer an Accounting Ethics course to students pursuing a Bachelor of Commerce degree with the intention of qualifying for the examination awarding them Chartered Accountant status although this does not involve experiential learning. Although the Accounting Ethics course is run by the Department of Philosophy, it is not perceived by staff members as an offering for students who are serious about Philosophy. Rather, it is specifically tailored for Accounting students in year three in response to concerns about ethics raised by the South African Institute of Chartered Accountants (SAICA⁴⁹) following, for example, the Enron scandal⁵⁰.

⁴⁸ The Grahamstown Area Distress Relief Association (GADRA) runs a number of projects intended to support poor, black working class citizens of the town. The project of interest to this study is the ‘Matric School’. This provides an opportunity for school learners needing to rewrite Grade 12 subjects, which they have either failed or for which they require better marks for the purpose of entering tertiary studies. The GADRA Logic course offered by Philosophy Master’s students is included as an extra curricular activity in the Matric School.

⁴⁹ SAICA is the professional body for accounting in South Africa. Students hoping to practice as accountants need to pass board examinations in order to achieve chartered accountant status (CA[SA]).

⁵⁰ Enron was a US energy company that was bankrupted in 2001. The bankruptcy led to the dissolution of Arthur Andersen, one of the largest accounting and audit companies in the world thanks to concerns about auditing practices.

Student involvement in community engagement activities (see Figure 2 in 1.2.2) on a volunteer basis does not form part of the formal curriculum and therefore does not meet Bringle and Hatcher's (1995: 112) criterion for service-learning as a 'credit bearing educational experience, where students participate in organized service framed by reciprocal goals whilst engaging in reflective practices'. However, the students involved in offering the GADRA Logic course could well argue that other of the criteria identified by Bringle and Hatcher are met because their participation offers them opportunities 'to gain further understanding of course content and simultaneously broaden an appreciation of the discipline while enhancing a sense of civic responsibility' (*ibid*: 112). Since the GADRA Logic course, of all the courses in the Department of Philosophy, comes closest to meeting criteria for service-learning, I will use the course to explore what enables and constrains the emergence of service-learning in a 'soft pure' (Biglan, 1973a,b) discipline such as Philosophy in a research-intensive institution like Rhodes University.

As mentioned earlier, two participants were interviewed for the purposes of the study. Peter⁵¹ is a senior academic in the department with associate professor status. Peter was interviewed because he had been identified by his academic colleagues as a resource for Charlotte⁵², my other interviewee, and other Master's students teaching the GADRA Logic course.

In line with the size of Rhodes University, the Philosophy Department has a small staff complement comprising six full time academic staff and one secretary. The department offers Philosophy courses to over three hundred students from year one all the way through to doctoral level.

I have already mentioned that service-learning is not used as a pedagogic tool in this department but that the GADRA Logic course fills some of the criteria for service-learning. In terms of the framework used to guide this study, the GADRA course is conceptualised as a series of events at the level of the Actual. Experiences of staff and students with respect to the course are located at the level of the Empirical. As a researcher, my aim is to explore the interplay of structures and mechanisms at the level of the Real from which the course and these experiences emerge. As with other cases in this study, my interest is in how conditions at the level of the Real lead to the emergence of this particular form of service-learning in the Philosophy department.

⁵¹ Peter is a pseudonym designed to provide a measure of anonymity.

⁵² Charlotte is also a pseudonym aimed at providing some anonymity.

All four cases in this study are presented in the same format. Thus the GADRA Logic course is introduced in the next section as a series of events at the level of the Actual.

9.2 The Actual

As mentioned above, the Philosophy department does not offer any courses infused with service-learning as a pedagogic tool. However, a small group of Master's students co-ordinate an outreach project in which they teach informal logic to the learners at the GADRA Matric School. Outreach projects form part of the community engagement continuum (as discussed in 1.2.2). However, such activities are constructed as external to the formal curriculum process. This is not to suggest that outreach projects are not beneficial to students, the department and, indeed, the University. However, since this study focuses on curriculum related community engaged activities and, in particular, service-learning, it is beyond the scope of the study to elaborate on the benefits of extra-curricular community engaged activity.

Currently Master's students facilitate the course. However as Charlotte indicates, the course resulted from the initiative of an academic staff member no longer with the department. Initially, the course therefore benefited from more direct input from academic staff than at present:

It was really started up by this one faculty member. Lance⁵³ started it, and when he left there was no member of our department who really took it up. Peter took over but he was not actually a teacher at GADRA, he has never really set any kind of material for it, so it is student run basically.

The GADRA Logic course focuses on teaching informal logic at a level accessible to high school leavers. Learners attending the GADRA Matric School have completed the twelve years of formal schooling in South Africa. However, because of unsatisfactory Grade 12 results they are given an opportunity to improve their performance in order to have a better chance of entering tertiary institutions.

The GADRA Logic course teaches philosophy at a basic level through application rather than an overly theoretical approach. The course is offered to approximately one hundred late adolescent (18-19 year old) learners grouped into five classes by GADRA teaching staff. The GADRA course is offered to each group once a week for 45 minutes.

⁵³ Another pseudonym.

Charlotte and her team⁵⁴ introduce learners to the uses of argument, to the nature of fallacies and guide students into identifying different types of arguments as a way of providing a form of grounding into logic.

Charlotte and her colleagues work towards achieving the goals of the course over a three-term period. The classes are planned collectively and each facilitator uses the same materials for their group. Learners are required to debate and provide reasons for their opinions on contemporary and controversial topics identified by Charlotte and her team:

The first term was focused on just getting them to give reasons for their piece, and to have it written down. Then the second term we focused on assessing those reasons, so not just, “Okay, this is my belief” [but] “Here are the reasons why I have this belief, and here is some reason why those reasons are good.” And then in the third term we focused on writing specifically.

The GADRA Logic course is neither a formal part of the learners’ curriculum nor does the service that the students provide by teaching on it provide credits for their Master’s degree. Nevertheless, the course has emerged because the Master’s students have exercised their agency in relation to structural conditions (see 9.3.1), which produce large numbers of black working class learners unable to access higher education. At the same time, students draw on a set of prevalent common sense discourses (see 9.3.2.2) related to language and thought enabling the emergence of the GADRA Logic course.

Following critical realist convention, the discussion moves to the ‘intransitive domain’ (Bhaskar, 1978) to explore the mechanisms that contribute to the emergence of service-learning in the Philosophy case at Rhodes University.

9.3 The Real

9.3.1 The domain of Structure

In line with the previous two cases presented as Chapters Seven and Eight, the structural conditions discussed here draw on my analysis of structural conditions in the higher education context presented as Chapter Six of this thesis.

⁵⁴ The team comprises two Masters students who plan the curriculum and content of the course (one being Charlotte) and teach the course and four Honours level students who are involved mainly in providing feedback to the weekly tasks submitted by learners.

9.3.1.1 The knowledge structure of Philosophy

Following Biglan's (1973a,b) typology and Becher's (1989) identification of the cultural and cognitive elements of each academic 'tribe', Philosophy can be classified as a 'soft pure' discipline. Becher and Trowler (2001:36) list the characteristics of soft pure knowledge disciplines as:

... reiterative, holistic, concerned with particulars, qualities, complications, personal, value-laden; dispute over criteria for knowledge verification and obsolescence; lack of consensus over significant questions to address; results in understanding interpretation.

Another way to categorize Philosophy is to place it within the social science disciplines and, as Becker, in Becher and Trowler (2001:40), points out, the social sciences focus on providing deepened understandings of existing phenomena through a reiterative process highlighting complications in existing understandings. This process explores and deepens understandings of areas such as metaphysics, epistemology and ethics.

As I have noted earlier in the Environmental Science and Entomology cases (see Chapters Seven and Eight), disciplinary typologies such as those offered by Biglan (1973a,b) and expanded upon by others (Kolb, 1981; Whitley, 1984; Becher, 1994) provide frames illustrative of how disciplinary knowledge structures can influence disciplinary cultures. I heed Trowler's⁵⁵ (2011) warning about essentialized understandings of disciplinary practices, where disciplinary characteristics are perceived as the dominant drivers eliding other elements of context impacting on academic life. I use Archer's (2000) analytic dualism (see 2.4) in an attempt to avoid the essentializing that Trowler (2011) warns against. This allows me to disentangle the interplay between structure, culture and agency and to begin to account for the form that service-learning takes in this case.

Although I agree with Trowler (2011) that the functions and characteristics of disciplines and the ways they manage to change or resist change are complex, a discussion of disciplinary knowledge structures is a fruitful starting point from which to examine the social organisation of the discipline (Bernstein, 2000:51).

⁵⁵ In a 'think piece' for the Higher Education Close Up 6 conference, Trowler (2011) unveils the latest positioning regarding academic discipline cultures that he and his colleagues provide in a forthcoming book *Tribes and Territories in the 21st Century* (2012).

Peter describes his discipline in the following way:

So we are inward looking, we focus on our own discipline, as it is, as it is created somewhere else, right? Philosophy is a bit like that, at least most of it, large chunks of it, so we tend to be insular.

Peter's statement identifies Philosophy as an inward looking discipline. According to Bernstein (2000), in typical inward looking disciplines, what counts as knowledge, is validated from within the disciplinary community. Philosophy can also be classified as exhibiting a singular discourse, which:

... is a discourse which has appropriated a space to give itself a unique name
These singulars produced a discourse which was about only themselves. These discourses had very few external references other than in terms of themselves (Bernstein, 2000: 9).

Thus knowledge, and how that knowledge contributes to growth beyond the disciplinary community, is deliberated upon and theorized by means of discourse that is particular and primarily relevant and accessible to the disciplinary community itself although, in some cases, this might extend further into the wider academic community. Debates and theoretical deliberations do not encompass communities beyond the borders of the academy.

The knowledge structure can thus be seen to impact on any discussion of the use of service-learning as a pedagogic tool in the Philosophy curriculum from the outset. Nonetheless, members of such singular, inward-looking disciplinary communities are faced with the need to consider the use of service-learning as a means of enabling movement between the everyday discourses of the community and the elevated discourses of the university (see 1.2.2) if dominant discourses are heeded.

However, as discussed earlier in this chapter it would be premature to draw conclusions based solely on disciplinary knowledge structures. I therefore turn to the curriculum structure for more insight.

9.3.1.2 The Philosophy curriculum

The Philosophy department is part of the Humanities Faculty and Philosophy courses are offered as part of a programme leading to the degree of Bachelor of Arts (BA). The minimum time for completion of a BA degree is three years and, in this time, students are required to complete ten courses, which must include two major subjects. Philosophy courses must be taken from year one to year three in order for the subject to be considered as a major.

A curriculum leading to the degree of BA with Philosophy as a major can be structured in many ways at Rhodes University as there are no restrictions on which courses should be included other than the year one, year two and year three courses in Philosophy itself. The curriculum structure below is therefore but one example of courses that can be taken to meet the requirements for a BA degree.

YEAR	SEMESTER 1				SEMESTER 2			
1	ECO ⁵⁶ 101	PHI 101	MAT 101	POL 101	ECO 102	PHI 102	MAT 102	POL 102
2	ECO 201	PHI 201	POL 201	PSY 101	ECO 202	PHI 202	POL 202	PSY 202
3	ECO 301		PHI 301		ECO 302		PHI 302	

Figure 15: An example of a curriculum leading to a dual major in Economics and Philosophy

Charlotte provides details of what students can expect to encounter whilst studying in the Department of Philosophy at Rhodes University, which seems to differ in its approach to other departments in South Africa. In other Philosophy departments, the approach is to induct students into the discipline by looking at the lives of philosophers and the great works associated with them and, by this means, to teach the basics of forms of argumentation. Charlotte’s experience as a student in this department, and also as an academic teacher, is that at Rhodes University a different approach is adopted:

I mean courses like the ones at Rhodes are run quite differently. They do not take that kind of historical approach to philosophy as such. There are courses that are about one philosopher in particular, but mostly they try to tackle the general branches of philosophies, so general branches of knowledge.

This approach, she argues, leads students through argumentation by asking the really ‘big’ questions such as ‘What is knowledge?’, ‘How do we come to gain knowledge?’, ‘Is scientific enquiry a way to gain knowledge?’ and so on, thus exposing them to the breadth of the discipline. The ‘big’ questions may well be inspired by contemporary issues in

⁵⁶ See Appendix C for elaboration of course codes.

communities and therefore are driven by a genuine regard for the need to analyse, and arrive at, plausible explanations of the observable and experienced. Nevertheless, inquiry is likely to remain at an esoteric level. Philosophy is generally taken to be concerned with general and fundamental problems focused on existence, knowledge, values and reason. The academic pursuits of Peter and his colleagues, in the realms of both teaching and learning and research, are framed by these concerns.

The department explicitly informs students that its courses focus on ‘some aspects of three core areas of philosophy: metaphysics (What is the nature of reality?); epistemology (What is knowledge and is it possible?) and ethics (What is the good life and what is the right thing to do?)’ (*The Philosophy Handbook*, 2011).

Peter explains that the Philosophy Department at Rhodes University is heavily ‘influenced by the Anglo-American tradition’. As a result, courses offered in this department follow both the ‘Analytic’ and ‘Continental’ traditions of Philosophy. According to Peter⁵⁷, philosophers who subscribe to these traditions have particular notions of their discipline. For example:

Philosophy which is [in] the Anglo-American tradition which started 100 years or so ago, is justified true belief. So basically, you do not have knowledge if you do not have a belief, which is like justified okay?

Philosophers, like members of any other discipline, are beholden to ideals, values and practices that are conceived, argued for and maintained by the discipline community which, in turn, then shape the curriculum offered in the department.

Peter points out that he and his colleagues are responsible to:

... the community of philosophers nationally. A national community that is informed by what is going on overseas, particularly in the United States of America and Britain⁵⁸.

This seems to imply that the introduction of new ideas about philosophy, how it should be taught and how it relates to the world ‘outside’ the discipline (such as the idea that service-learning should be infused into the curriculum) would have the potential to have consequences with regard to the way the department is viewed by colleagues elsewhere.

⁵⁷ Charlotte expressed very similar views to Peter in her interview.

⁵⁸ The fact that Peter is known in the local community as an individual committed to social change is indicative of the structural emergent powers and properties (SEPs) of the discipline.

The philosophy curriculum is not solutions driven, as is the case in Environmental Science, neither is it focused on providing interventions like Psychology. It is not captivated by the relationship between living organisms and humans, as is the case in Cultural Entomology (see 7.3.1). What becomes apparent is that the nature of the discipline of philosophy itself, and the curriculum this engenders, promotes an approach to teaching and learning that exhibits a tenuous link to the everyday horizontal discourses (Bernstein, 2000).

In the Philosophy Department at Rhodes University, curriculum decisions are not centralized. As Peter notes: 'It is very individualistic, the way we choose things'. Lecturers are responsible for making decisions regarding curriculum content. Although individual lecturers have latitude to choose curriculum content, this is mediated by two things: i) an agreement amongst academics about which textbook will be prescribed and ii) a common interest in keeping the curriculum balanced by sharing and, where necessary, debating the merits of one particular topic over another. As a result, the text book influences the curriculum:

... a textbook, a very good one, right? Where key texts are chosen, it is generally very good, but it has more topics than we choose.

He elaborates on the need to find balance in the curriculum and the way members of the department find that balance by noting:

If we were to skew it in one direction, where everyone wanted to do Philosophy of Religion, then we would have a debate or a discussion about what goes in.

Bernstein's (1996, 2000) concepts of the Official Recontextualizing Field (ORF) and the Pedagogic Recontextualizing Field (PRF) are valuable in explaining curriculum decisions. The university setting and the fact that the disciplinary community of Philosophy is not regulated by a professional based body or the needs of industry affords Peter and his colleagues control of both the ORF and the PRF. In their capacity as university academics, they exercise agency as active members of the disciplinary community by making decisions pertaining to the nature and content of the curriculum, unlike in school settings or in the former technikons⁵⁹, where teachers and lecturers are not in control the ORF. Peter and his colleagues control the PRF in deciding how to structure knowledge areas in the curriculum.

⁵⁹ Technikons were institutions of higher education established under the apartheid regime to provide the technical education necessary to meet the needs of South African Industry. Curriculum decisions in former technikons were made as a collective at a national level. Thus decisions regarding curricula were not the responsibility of individual departments or individual academics. Technikons became universities of technology in the early 2000s.

This, in turn, means they have the ability to influence the development of the disciplinary identities assumed by their students by paying careful attention to the kinds of knowledge valued in the curriculum. They do this through their pedagogic choices. As I have indicated above, these identities are not ‘outward-looking’ because of the nature of the structure of the discipline itself.

Framing (see 3.2.1) is strong because, as lecturers, Peter and his colleagues have explicit control over the ‘selection, sequence, pacing, criteria and the social base’ (Bernstein, 2000:13). Following Bernstein, the social order rules coined as the Regulative Discourse (RD) and the Instructional Discourse (ID) provide insights into the relative strength of framing.

In line with the other two cases already discussed, academics have the freedom to make autonomous curriculum decisions. The ID is thus in the control of the individual lecturer, although cultural considerations require her/him to consider what Peter terms the ‘balance’ of choices. In addition, lecturers are required to consider the alignment between the courses they develop and the rules for degrees stipulated in the University Calendar.

Control of the ID is also extended to academics co-opted to teach in the department on a part-time, temporary basis as Charlotte’s comments below show:

I took *Accounting Ethics* and *Introduction to Philosophy* in fourth term, on epistemology actually, and both of those courses were actually headed up by Mark who is a member of our department. And he had a general idea of what needed to be covered in the course, but the specific content was pretty much up to my discretion. Obviously he looked over my notes to make sure that everything was in there but it was pretty much up to me - the specifics.

The *Philosophy Handbook*, made available to all students, affords insights into the RD. In the handbook, the department provides an overt description of its ‘ideal learner’ as well as insights into what it considers its responsibility to its students:

If you are interested in intellectual questions and if you are serious about developing your thinking and argumentation skills at university, then you should do [Introduction to Philosophy] ITP. The Philosophy Department also offers good teaching, efficient administration, intelligent and keen fellow students, as well as a friendly environment (The Philosophy Handbook, 2011: 5).

The following section delves into how these curriculum decisions then translate to the Philosophy curriculum offered at Rhodes University.

9.3.1.3 Disciplinary Identity

I have already alluded to some elements of disciplinary identity in the sections above. I will now explore the notion of disciplinary identity in relation to the department specifically.

Peter notes a focus on ethics in the department:

We are an ethics heavy department, and we have just had discussions very recently about, you know, about whether this is a good thing. We are a specialist department and actually ethics is one of the main fields today in Philosophy.

This description of departmental focus offered by Peter exemplifies Kogan's (2000: 209) comment regarding the development of academic identity.

For development to be strong it must be firmly rooted in the intellectual self-confidence of the disciplines and subject areas to, which the academics belong. That is the context in which a sense of academic identity flourishes.

Bernstein (2000: 54-55) provides additional insight into our understanding of disciplinary identities within 'singular' disciplines such as Philosophy. He maintains that the 'strong autonomous self-sealing and narcissistic identities' that singulars develop through introjections are preserved by the deliberate construction and maintenance of strong boundaries separating them from other disciplines.

The identities forged by Peter and his colleagues in the department are therefore not in conflict with those of the wider discipline community. However, these identities are in conflict with demands (see 4.3.2) that institutions of higher education, particularly in South Africa, should be socially responsive to the challenges facing society.

Peter acknowledges this tension by critically questioning the stance taken by philosophers:

What is our role? We are in an institution that is embedded in society. What is our role? What have we done as a community [of philosophers]? I think South Africa presents us with a very interesting format for *thinking* about this because the problems are so obvious - it hits you in the face everyday. Are you just going to be looking inward and ignoring it and drawing your salary whatever, and writing to your peers, or are you going to *think* about things?

Peter's emphasis on 'think' contrasts strongly with the alternative of 'do something'. While he accepts that a philosopher's role is to think about things, it would seem that he is critical of philosophical thinking as something disconnected from context. As indicated earlier,

philosophers do not deem it appropriate to engage in the practicalities associated with addressing social problems. However, it would seem, as Peter indicates, that social challenges are indeed something that Philosophers should be *thinking* about.

It is therefore not surprising that Peter and his colleagues do not consider the teaching interventions that the Master's students provide as appropriate engagement for philosophers:

I cannot imagine any of my colleagues going out of the way for GADRA, right? . . . Given the sorts of constraints that we are working with, it would be tragic that the kids do not get that education, but in terms of the priorities of the department, and the priorities of philosophy, I am not sure that we should channel our energies, and say 'Forget about the book projects', right? - Go to GADRA!' I am not sure that that would be the right thing to do.

This would suggest that Peter and his colleagues exercise their agency drawing on the structure of the discipline as well as a set of discourses constructing the behaviour of philosophers. Central to the discursive construction of the discipline is the idea that, as Peter puts it:

[i]t is a field that critically analyses, it critically and systematically analyses, from a theoretical point of view, the basic problems, basic problems that are of concerns to human beings.

Thus, Philosophy is constructed as a discipline that focuses on theorising as a means of providing insights into everyday living⁶⁰. Academics draw on 'procedures' that result in carefully structured arguments following the rules of logic but the activity is essentially theoretical rather than practical. As a result, disciplinary identity can be seen to constrain the emergence of service-learning as a pedagogical tool.

In this thesis, the idea that service-learning is a pedagogical tool that can forge a new relationship between higher education and society has been cited frequently. Universities increasingly have to contend with pressures from outside the academy that impact on their core values and functions. Publicly funded institutions like Rhodes University are, to some level, autonomous yet, at the same time, they are held accountable to the public purse by

⁶⁰ An example of this activity is a paper, published by a member of the department in 2011, which explored the role of white people in South Africa in the wake of apartheid. The paper was enormously controversial and widely criticized in the popular press. In speaking about the paper, the author made it clear that she had been surprised that a paper published in an academic journal should cause such a furor.

various mechanisms. University leaders and individual academics then have the responsibility to maintain a balance between these external demands and the integrity of the academic enterprise.

Academics may often seem more intent on guarding against what can be interpreted as over-involvement or compliance with these outside influences (Du Toit, 2007:25). The perceived danger with over-involvement or compliance is that this would result in tarnishing the integrity of the academic enterprise. When confronted by a the choice of conforming to external demands or maintaining disciplinary integrity, academics show allegiance to the values of the disciplinary communities within their own institution as well as to those which exist more widely (*ibid*).

In the case of philosophers, it is clear, as Peter points out, that although an individual academic may see the relevance of the GADRA Logic course, time spent on what the discipline community perceives to be of value becomes the driver:

I would find it [the GADRA Logic course] difficult. Even I would find it difficult, even though I have a commitment to it and I believe in it, time wise I would have a great difficulty.

In other cases, time has been reported as a structural restraint. The case of Philosophy allows me to expand upon my understandings of time and see how its potential to constrain is determined by priorities – in this case by the priorities of the discipline.

Kogan (2000) notes that '[i]n all relationships there is a need for separateness - the assertion of identity - as well as connectiveness'. The separateness referred to here is in the form of a critical distance, on the part of academics, from policy impacting on the higher education system in which they work. Kogan (*ibid*) suggests that academics are likely to take a critical stance when engaging with policy imperatives that have the potential to endanger the 'freedom to think the unthinkable action and to bear witness to the truth and independent theory' (200:214) - in other words with imperatives perceived as having the power to endanger academic interests, values and integrity.

Peter's comments below provide insights into why the GADRA Logic course has not been identified as one of the core academic responsibilities in his department:

It comes in, casually and in departmental meetings as a sidekick, as the thing we do, the thing that some of our students do.

Charlotte speculates that another reason why the GADRA course is not central to departmental considerations is that:

Perhaps some very straight academically minded philosophers would not be interested in that [teaching] at all. They are not really interested in teaching other people to think critically. This is a skill that they have already got by doing philosophy.

Peter's comment that the status of the GADRA course in his department relates to the fact that the levels of philosophical engagement are so basic that the involvement does not add to the scholarly endeavour expected at Master's level provides possible elaboration on Charlotte's comment. This means that the course is not of mutual benefit to students and community partner - the primary beneficiary is the community partner, in this case GADRA Matric School.

Earlier in this chapter, it was noted that students enrol for Philosophy courses with the intent either of majoring in the subject or of attaining credits that count towards a bachelor's degree with other subjects as majors. In addition to these two groups of students, academics in the department teach a third group of students working towards a degree in Accounting. The course taught to these students is a requirement imposed by the South African Institute of Chartered Accounts (SAICA)⁶¹.

The Philosophy Department offers this course as a 'service' to the Accounting Department, which is perceived not to have expertise to offer what is required. The idea that the course needs to be taught by the Department of Philosophy is indicative of strong classification and framing in the BCom curriculum constraining academics from the Commerce Faculty from teaching the course. The course sits uncomfortably within the Philosophy Department as Peter notes:

So we need to grow massively as a department if we want to do a proper programme in a proper service to the students, proper teaching to students of ethics. From first year onwards kind of weaving the whole ethical issue, the whole concern. In this case it is like a little worm that is planted there, it is just annoying for the students, and it is deeply dissatisfying to teach.

Charlotte agrees with Peter, noting that it is difficult to attain any depth in a course lasting only three months:

It is a very contentious kind of course because the idea is that, well if you just going to look at a couple of theorists about ethical issues, what is that really going to do in a

situation where you are being offered a huge bribe to cook the books? Are you going to look back to your lectures in third year and say; ‘Oh, but Kant, Kant would have said that I should act morally!’

Elaborating further, Peter provides two reasons why he experiences difficulty in teaching the Accounting Ethics course. The one is the perceived clash at a fundamental level between what he considers as core values embraced by Accounting students and how these are at odds with conceptions of ethics in his own discipline:

I mean, why do students go into Accounting in the first place? It is not because they have a love for humanity and they want to change the world. That’s not why you take Accounting, right?

The second reason is that the Accounting Ethics course is considered to be an *applied* course and, for Peter, teaching this course is problematic, as it seems uncomfortably close to the type of Philosophy that serious philosophers dismiss:

I know that the business ethics community generally, is a really low grade community of philosophers. Generally they are cowboys. They want to get a lot of money - you know philosophers don’t get much money! How do I make money? I am going to become a consultant to corporations, and since there is so much pressure, the Enron scandal, environmental scandals, it’s the perfect environment to make a bit of money. So you get a proliferation, not of books, proper intellectual inquiries into business ethics, but textbooks for business people. This proliferation of textbooks and consultants - and there is so much rubbish in that field. So there is more evidence against the idea that philosophy should be, that Philosophy is watered down actually.

Peter admits to struggling to do a proper job in relation to teaching this applied course. His discomfort is possibly connected to the fact that a post was specifically created within his department to service the Accounting department by teaching this course and that this decision was largely influenced by pressure from outside the academy boundaries (i.e. from SAICA) and therefore was not driven by disciplinary concerns. The Accounting Ethics course incorporates a fair amount of application and orientation towards an outward pursuit, going against the grain of the theoretical inward looking orientation of Philosophy.

The emergence of the Accounting Ethics course is enabled by the corporate agency of SAICA drawing on the structure of the academy and on its own status as a professional body. SAICA also draws on financial structures that enable an externally funded post to exist within a university structure.

It would seem then, that marginal opportunities do exist for applied courses to be developed in the department. However, it is also clear that the status of such courses would be low and they would not be accorded the legitimacy of ‘real’ philosophy. This has implications for the emergence of service-learning.

9.3.1.4 Primary Audience

Philosophical deliberations are generally accessible only to the discipline community as Peter explains:

What we do in the first instance is speak to our colleagues. We have a community, we speak to each other, and I think that there are some who are not for that, right? Our primary audience should be our peers, but that does not mean that we should not have an impact, that we should not be concerned about issues.

Insights into the primary audience of a discipline are best explored drawing on a range of Bernsteinian (1996, 2000) concepts already discussed in 3.2. It would seem reasonable to assert that Philosophy is a typical strongly classified discipline and it is thus not surprising that the primary audience is the disciplinary community. The deliberations that Peter and his colleagues engage in may well draw on phenomena constructed through everyday horizontal discourse. However, these are recontextualised into vertical discourse where the degree of condensation of meaning (semantic density, Maton 2008) is so strong that would it require considerable recontextualization before it could be accessible to audiences beyond the boundaries of the discipline and the academy. The focus on the disciplinary community as the primary audience is important as it impacts on the emergence of service-learning - a pedagogic tool that is considered a means of bridging vertical and horizontal discourses. The relevance of service-learning to a discipline such as Philosophy then becomes difficult to conceptualise.

Having the disciplinary community as a primary audience further entrenches the distancing of the discipline from the everyday lived experience of society at large. This perception is highlighted in Charlotte’s response to whether academic enquiry ought to impact the average person:

[Do] academic disciplines affect the average Joe? Well it is a filtered down effect obviously and so things that people talk about in academic Philosophy filter down.

Charlotte introduces the ideal of Philosophical knowledge being communicated indirectly into horizontal discourse (Bernstein, 2000) as a result of being ‘filtered down’. The image of

‘filtering’, however, suggests a loss in this process. It is not within the scope of this study to elaborate on this idea further. My point at this stage of my thesis is to emphasise that the use of service-learning as a pedagogic tool appears to be constrained by the very nature of the discipline.

I think everyone has a genuine interest in the issues of the [GADRA] project, but most people are over committed. Academics are always overcommitted and so to get them to take on board another project that is not their main concern is very difficult.

Any analysis in a critical realist study would be incomplete without discussing the interplay of structures within the domain of structure with mechanisms identified as discourses in the domain of culture. The interplay results from the exercise of agency within the disciplinary community of Philosophy more broadly as well as within the Philosophy Department at Rhodes University.

9.3.2 The domain of Culture

Agents in this case (as in all four cases that make up the overall Rhodes University case) draw on a set of discourses that will be explored below.

9.3.2.1 Academic Freedom

As might be expected in a traditional institution like Rhodes University, one of the most significant discourses identifiable in the case of Philosophy is that of *Academic Freedom*. This discourse justifies and defends autonomous decisions made by individual academics and by departments as well as the University as a collective. This discourse has already been identified in the two previous cases, the case of Entomology (Chapter Seven) and the case of Environmental Science (Chapter Eight). It is understood in the same fashion in the Philosophy case in that it encompasses the idea that, although individuals and the collective have the right to make autonomous decisions, they are still accountable to the disciplinary community as well as the academy and to society. This is exemplified by Peter’s explanation of the ‘individualistic way [they] choose things’ (i.e. teaching content as well as research interests). However, these choices are made within agreed parameters ‘we teach some of the basic arguments that are out there in Philosophy fields’.

9.3.2.2 Constructing the discipline and the work of philosophers

Another set of discourses evident in the data relate to the construction of Philosophy itself and the way the discipline relates to the world.

I have already identified some of the ideas encompassed by these discourses in my analysis of the structure of philosophy. However, as I understand discourses as mechanisms in the domain of Culture, I continue the analysis here.

One discourse to which I have already referred is here termed the discourse of *Dissociation*. This discourse constructs philosophers, and the activity of philosophising, as detached from worldly concerns and is thus perceived to have limited impact on societal challenges. Peter's interpretation of the sort of response his disciplinary community might make to questions about the contribution Philosophy has to offer to worldly concerns is indicative of this discourse:

I could tell you some of the things that I would say, that the community [of Philosophy] would say as a whole. One of the things that the community would say as a whole is; 'Who cares?' We are not here to impact on an issue. We are interested *in* issues, right? Whether it has an impact or not, that is neither here nor there . . . Perhaps a little less honest response would be - but it is a true response but a less honest - is that there will be a trickle down effect. We do not really know you know?

This discourse differs from another discourse, which I have termed the discourse of the *Quintessential*. This discourse is subscribed to by the philosophers in the department at Rhodes University and encompasses the idea that a philosopher's contribution to the world is theoretical and esoteric. It would seem that philosophers prioritize theorizing. According to Peter, this requires sophisticated ways of 'thinking creatively and carefully about issues that are really important'. However, the focus is not on using this thinking to identify solutions to problems or to apply the thinking in some way, but rather to explore principles and ideas themselves.

Analysis of the case also reveals a cluster of discourses related to *Language and Thought*. These discourses are related to what Christie (1985) terms a 'model of language as an instrument of communication'. This model assumes that language 'contains' meaning, which can be transmitted to others. Using language therefore involves translating ready-made meanings into language that then functions as a code (or vehicle) to convey those meanings to others. Christie contrasts this sort of commonsense understanding of language with another – that of language as a *resource for the making of meanings*. This model of language draws on the work of Systemic Functional Linguist, Michael Halliday (see, Eggins 1994 for a succinct

explanation) in arguing that meanings are constructed *in language use* through reference to a context of culture and a context of situation.

In relation to reading and writing, Olsen (1977) argues that the commonly held idea that meaning is placed *in* text as a result of the act of writing and has to be retrieved from text through reading can be traced to the development of written script. Before the invention of script, stories and poetry were used to pass on important cultural information to succeeding generations. Both these genres rely on ‘poeticised’ forms of language that are more memorable than prose. The use of devices such as rhyme and rhythm in this poeticized language meant that some statements became less explicit. However, since poems and stories were conveying information that was not new, listeners were able to supply the background information necessary for understanding. In the case of any remaining ambiguities, wise men, scribes or clerics were available to provide an ‘authorized’ interpretation.

The invention of an alphabetic writing system that could represent speech accurately meant that speech could be captured and no longer needed to be remembered. As a result, the use of poeticized language, which facilitated this remembering, was no longer important and the background knowledge that listeners brought to the rendition of inexplicit spoken texts was no longer so important. Over time, writing thus became explicit, ‘containing’ meaning, where oral language had been inexplicit and had needed meaning to be constructed through the use of prior knowledge.

Over time, the idea that the ideal text was ‘autonomous’, in the sense that it could be understood without additional information, came to dominate and is evidenced in the work of British ‘essayists’ such as John Locke. The practices associated with the production of such texts have also been idealised as the norm for literacy, especially academic literacy.

According to Olsen (1977: 268) the idealized texts of the essayists constitute an attempt to construct explicit, unambiguous text that can stand up to the scrutiny logical reasoning. Logical reasoning is then understood to involve identifying premises and conclusions in sentences without recourse to prior knowledge or other contextual factors.

In South Africa, the idea that the teaching of informal logic by departments of philosophy can assist in the development of writing competence, and more specifically in students’ ability to structure a written argument, has been reported by, for example, Boughey (2002). The very nature of language and of acts of reading and writing make this a faulty assumption, however, since simply knowing the rules of logic is not enough.

Boughey (2002:302) cites the following example from a logic course taught at another South African university. The example requires students to provide a conclusion to the following premises:

Mr Ntuli does not drink alcohol. He has always done regular exercise. Given that he does not suffer from any stress at work ...

In order to write the conclusion, students need to know about the effects of alcohol, lack of exercise and stress on health. In other words, they need more than knowledge of the rules of logic.

This misconception is apparent in the conceptualisation of the GADRA course that relies on common sense assumptions about language and literacy, which exist in discourse. The role of language and literacy related discourses in contributing to the emergence of the form of this particular instance of pedagogy cannot be ignored. Interestingly, it would appear that the same rigour afforded by philosophers to other concerns has not been applied to the GADRA course. Rather, the course draws on more common sense notions of teaching and literacy development probably because the philosophers themselves do not see the course as central to their identity or their work.

It is becoming apparent from the discussion thus far that structural and cultural conditions show a propensity for constraining the emergence of service-learning in a 'soft hard' (Biglan, 1973a,b) discipline like Philosophy.

9.3.2.3 Research driven

As can be expected of academic departments in a research-intensive university, a research-driven agenda dominates in the Department of Philosophy. The revenue generated from research activities does not seem to feature prominently in the collective consciousness of these philosophers, however. Instead, as Peter illustrates, amongst philosophers, research seems to be perceived as intrinsic to academic identity:

I will tell you how I see myself, right? I see myself, as primarily, my first love is research, right? That is my first love. Research is still my first love. It is what I really love doing - writing books in particular.

The internal motivation from the discipline for research engagement is congruent with the emphasis placed by universities, and particularly by research-intensive universities, on the rewards and prestige that accrue from research activities.

Bawa and Mouton's (2002:303) analysis of the South African research landscape highlights the influence of policy on research in the higher education system. The White Paper on Higher Education (DoE, 1997) identifies '[t]he production, advancement and dissemination of knowledge and the development of high level human resource are core functions of the higher education system' as one of the core purposes of higher education.

Although areas of research interest for philosophers are varied, arguably philosophers concentrate on what is commonly understood as 'pure' or 'basic' research. Clearly, the value of this type of research is different to that of applied research advocated in Mode 2 knowledge production. The value of the research undertaken by philosophers rather 'lies in the furtherance of human knowledge for its own sake' (Graham, 2005:82). In a traditional academic context such as Rhodes University, both applied and pure research activities are encouraged and acknowledged because of the recognition that each has a different aim and thus a different contribution to make. Applied research has utility and a 'further end' (Graham, 2005) framing and thus does not feature strongly in within the Philosophy community as Peter explains:

We are not here to impact on an issue. We are interested in issues right? Whether it has an impact or not, that is neither here nor there.

Charlotte's explanation of the centrality of knowledge to her discipline provides further insights into the appeal that pure research has to Philosophy:

Essentially the idea is to work with knowledge and our understanding of the world and our understanding of ourselves, and just to try and get a better picture of how these things are put together in the end.

Thus, pure research appeals to philosophers because the contribution is in 'the pursuit of understanding within which the acquisition of knowledge has a central part to play' (Graham, 2005:92).

A claim can be made that the research driven discourse in the Department of Philosophy constrains the emergence of service-learning, especially since the emphasis and interest of the disciplinary community is on Mode 1 knowledge that seeks an understanding of the world rather than a means of changing the world.

Peter and his colleagues draw on discourses constructing Philosophy as a discipline in conjunction with the discourse of academic freedom in order to justify their pursuit of research interests in a structure that is open and supportive of different research interest of any kind.

9.3.2.4 Teaching as Common Sense

In other cases, a discourse I have named *Teaching as 'Common Sense'* has been identified. This discourse is also apparent in the case of Philosophy; as Peter indicates:

I do not think Philosophers on the whole - I do not know what happens in other disciplines, I imagine similar things - do not really reflect that much on their teaching. Teaching is something that just happens naturally. It is a thing that happens when you go into a lecture - you impart information. But the focus is on research, not everyone, but for the most part.

Given this construction of pedagogic practice and the dominant status of research at institutional and disciplinary levels it is probably fair to infer that teaching and learning and community engagement (argued as the other core responsibilities in the academy) are seen to be epiphenomena of research endeavours.

It is thus plausible to claim that pedagogic practice adopted by the department constrains service-learning infusion. As a pedagogic tool, service-learning would require academics to reflect on pedagogic practice. As Peter points out, however, reflection on pedagogy is not common practice amongst philosophers in his department. Thus, the infusion of service-learning is constrained.

However, Peter's comments on his own position with regard to teaching provide insights that shift the analysis from an essentialist view of philosophers' pedagogic practice. Despite the constraints of disciplinary culture which tend to strongly classify teaching, research and community engagement as discrete activities, Peter admits to being:

... a little bit more subtle I think and now I see that these two domains are not necessarily that separate, research and teaching.

What may account for Peter's admission is his participation in a course offered by the CHERTL at Rhodes University. One of the conditions relating to his employment required him to demonstrate competence as an assessor of student learning in order to have his appointment confirmed. Along with many other academics, Peter chose to enrol in a course exploring the theory and practice of assessment in a highly reflective manner. Peter's engagement with the course was such that he was eventually able to achieve a publication in an accredited journal based on the document he produced to demonstrate his competence.

Peter's reflection on the relationship between pedagogy and research offers a crevice through which the imagining of the infusion of service-learning into the Philosophy curriculum could

take place. One of the ways for this to be achieved would be for more academics to take advantage of the opportunities for professional development offered by the University. However, as disciplinary cultures militate against this, the importance of structures in the form of policies and conditions of employment which exert pressure on academics to think about their teaching becomes ever more apparent.

9.3.3 The domain of Agency

Significant in the case of Philosophy is the fact that students are key to the emergence of the GADRA course, the course that comes closest to meeting the definition of service-learning. Although a member of the academic staff was initially involved in developing the course and although Pedro, in principle at least, has responsibility for overseeing the course, in practice it is left to students to do the teaching and ensure the continuation of the course.

Many discourses related to community engagement can be identified at Rhodes University. The Centre for Social Development (CSD) was established during the apartheid regime thanks to the efforts of the wife of a former Vice Chancellor⁶² who was committed to social causes. A long tradition of student volunteerism has resulted from the work of the CSD. More recently, a Directorate of community engagement was established and this has strengthened community engagement as a core activity.

What would appear to be the case in the Department of Philosophy is that a group of students are exercising their corporate agency by drawing on discourses related to volunteerism at the University. In addition, they draw on structures such as the GADRA Matric School and the fact that academic departments offer courses to run the GADRA course.

Students, of course, are still disciplinary novices. Their status can be seen to be on the margins of the disciplinary community. One possible result of this is that they do not draw on the same discourses constructing 'real' philosophy as the academics in the department. As a result, students are prepared to get involved in 'inauthentic' philosophy while the philosophers themselves shun this activity.

The members of the department exercise agency by allowing students to get on with running the GADRA course and by allocating nominal responsibility to Peter. In doing this, they

⁶² Thelma Henderson was awarded the Order of the Baobab (bronze) for her 'exceptional contribution to social development' (<http://www.thepresidency.gov.za/pebble.asp?relid=1070>). She was also awarded an honorary doctorate by Rhodes University.

draw on the cultural and structural conditions related to the discipline described earlier in this chapter. Given this observation, it would be interesting to explore the ways the philosophers engage with discourses valuing community engagement in the university more widely and whether they cite their own course as a contribution in this area. This goes beyond the scope of this thesis however.

9.4 Conclusion

The following diagram attempts to depict the mechanisms at play in the emergence of the GADRA course.

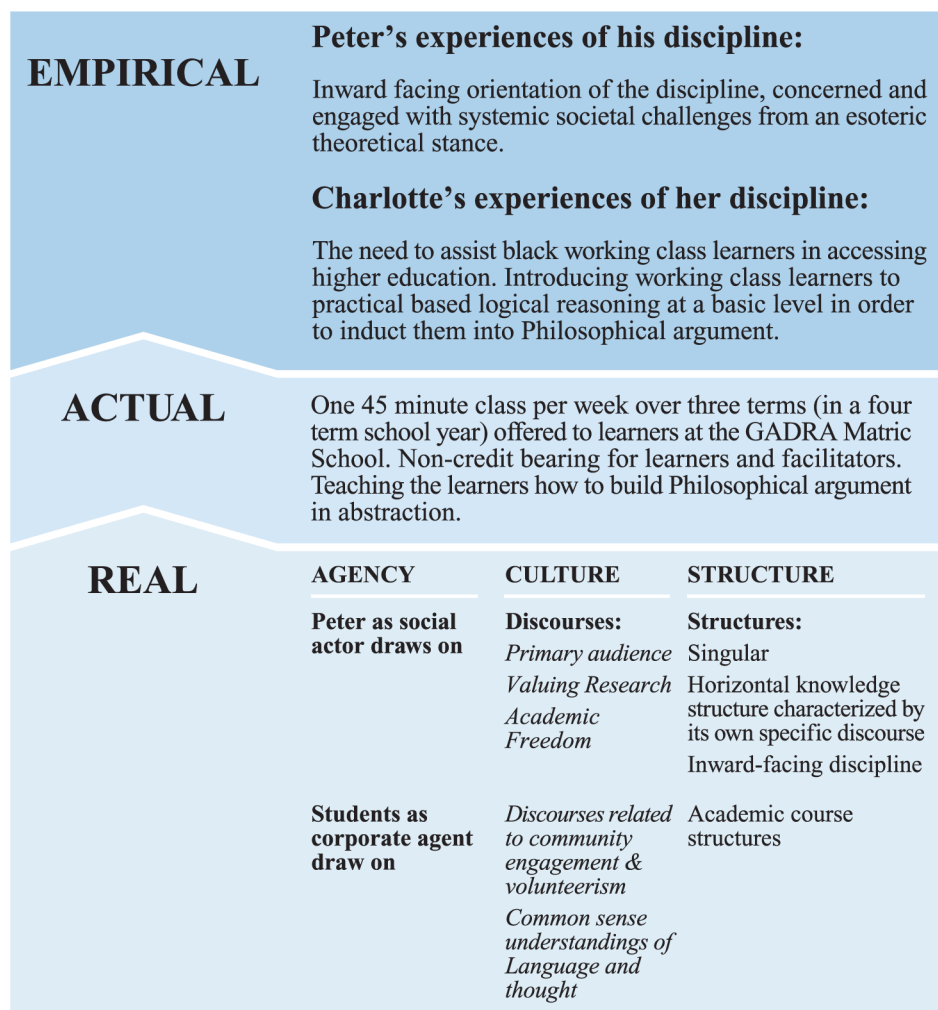


Figure 16: Philosophy concluding diagram

Chapter Ten: The Case of Psychology

10.1 Introduction

Analysis of this case draws on curriculum documentation, available on the departmental website, such as the *Department of Psychology Student Handbook*. This is combined with data derived from interviews with three members of staff in the department, anonymised as Riona, Hans and Mayte. These individuals were interviewed because of their involvement in, and influence on, the Community Psychology course that uses service-learning as a pedagogic tool. This course is described later in this chapter in order to demonstrate how it meets the service-learning criteria of i) being a credit bearing educational experience, ii) providing opportunities for students to engage in organized service framed by the principle of reciprocity, iii) allowing students to reflect on the experience as a means of broadening their appreciation of their discipline in society and iv) fostering an enhanced sense of civic responsibility (Bringle & Hatcher, 1995:112).

Riona was interviewed because of her status as full professor and Head of Department and also because she is a champion of community psychology. Hans was interviewed because of his status as a senior lecturer and as director of the Psychology Clinic that is linked to the applied component of the Master's training programme in which the Community Psychology course is located. Mayte is employed to facilitate and co-ordinate the Community Psychology course and was interviewed because of her work in this area.

The Psychology Department has a long and distinguished history at Rhodes University dating back to 1913 when Psychology was still taught under the broad rubric of Philosophy. It gradually gained recognition as a unique subject area and finally became an independent department in 1926 (<http://www.ru.ac.za/psychology/psychology/earlyhistory/>).

Currently, the department has a staff complement of twenty one full time academics offering Psychology courses from undergraduate to postgraduate levels to one thousand and sixty three students (<http://www.ru.ac.za/psychology/psychology/earlyhistory/>).

The analysis of this case follows the same logic as the three previous cases presented in this thesis (see Chapters Seven, Eight and Nine). The experiences and observations at the level of the Empirical, captured in interview data, emerge from the events and practices at the level of the Actual, described in curriculum documentation. Both the Empirical and the Actual are understood to emerge from structures and mechanisms at play at the level of the Real. My aim is to provide a plausible account of these structures and mechanisms and, in doing so, to

account for the form that service-learning takes in a soft applied (Biglan, 1973a,b) discipline like Psychology. The discussion thus explores the emergence of the Community Psychology course in year one of the two-year Master's degree programme at Rhodes University.

I now move to a description of the service-learning course, which, as I have noted above, is understood to comprise a series of events at the level of the Actual. My discussion in the next section therefore focuses on the Actual in Bhaskar's ontological framework.

10.2 The Actual

10.2.1. The Community Psychology Course

The Psychology Department at Rhodes University has been offering Master's level training programmes since 1975. Currently, twelve students are trained annually: six in Clinical Psychology and another six in Counselling Psychology. In addition, students can also register for a programme requiring them to produce a piece of research written up in the form of a thesis. The minimum completion period for all three Master's programmes is two years. Here, I will focus on the Clinical Psychology and Counselling Psychology programmes since students completing a Master's degree by producing a piece of research are not involved in Community Psychology course.

According to the departmental website:

The Master's Courses in Clinical and Counselling Psychology at Rhodes University are professional training programmes that provide the foundation that will lead to registration as a Clinical or Counselling Psychologist with the Professional Board of Psychology of the Health Professions Council of South Africa (<http://www.ru.ac.za/psychology/courses/masters/mastersclinicalcounselling/>).

In the first year of Master's programme, the curriculum focuses on both academic and practical training. Various courses are offered some of which are relevant to both specializations. The Community Psychology is one such course. Others are specifically tailored for the specialization. Students engage in course work, undergo practical training, carry a casework load, do written and oral examinations and also produce a dissertation in order to complete the programme. Second year students are expected to complete an internship at a recognized training site. Rhodes University has two locations recognized for purposes of internship: the Psychology Clinic as well as the Student Counselling Centre. Clinical Psychology students are required to complete an additional year of community service placement, which is a government requirement.

Mayte, who facilitates the Community Psychology course, describes it in this way:

Community Psychology is about working around psychological health at a community level, so it does not exclude individual models of therapy. But those would be seen as something one does in addition to the community psychology work . . . It predominantly works in geographical communities and it is generally focused towards people who live in marginalized or underprivileged communities in some way.

In the course, students are introduced to ‘theories and concepts for reflecting on a narrative or social constructionist approach to community’ (Community Psychology Course Guide 2010, Appendix VI) over a ten week period.

According to the Course Guide, this ten-week period comprises three phases:

Phase One consists of four contact sessions focused on introducing the theoretical and practical linkages of the Master’s one programme as well as providing background to Community Psychology in the South African context. Emphasis is placed on drawing on social constructionism and narrative methods in Community Psychology. Phase Two provides two contact sessions focused on exploring identity issues in relation to Community Psychology. Finally, Phase Three consists of five sessions focused on group research into possible applications of Community Psychology practice.

The ten weeks of this part of the course aims to prepare students for an experiential learning component providing students with opportunities to explore the role psychologists can play in providing interventions to address problems in the community. The experiential component consists of projects undertaken by students over a five-month period in school settings. Students are expected to draw from these projects to produce a Community Psychology report, which is then incorporated into a dissertation.

The exit level learning outcomes confirm that this course meets service-learning criteria (see 1.2.2):

Students should be able to:

1. Discuss and debate a narrative or social constructionist theoretical approach to community psychology;
2. Have a working knowledge of constructionist understandings of identity and self-other relations, and be able to demonstrate their relevance to community psychology;
3. Elucidate the implications of this theoretical position for particular interventions and programmes;

4. Outline intervention practices that draw on these principles;

Maintain a critical and reflexive position on, firstly, own role in interventions and, secondly, the theoretical underpinnings and interventions that this approach implies.

The second and fourth outcomes in particular speak to the aims of service-learning as a reflective opportunity for students to experience working in communities using their disciplinary expertise to offer services required by community members.

The criterion related to mutual benefit is met through the relationship established between the Psychology department and the schools where the students provide interventions. Criteria relating to the credit bearing nature of service-learning activities and to reflective activity are met through the case reports that students produce as a result of their engagement in the schools. Mayte explains that two case reports (one being the Community Psychology report), submitted during the course of the year, are incorporated into a dissertation. These two reports are allocated one third of the marks allocated to the dissertation.

As indicated above, Phase Three of the course offers five seminars dedicated to Community Psychology. These seminars take place before students engage with the teachers and learners in the schools. Mayte explains the school visits as follows:

Every Wednesday morning they would go to the schools up until . . . they needed to be back by twelve. Between twelve and one we had a group supervision session where they report back what they had done. We brainstorm if they needed support or materials or ideas or referrals of various kinds. That was the time when I would offer it in the context of a group supervision process.

The service offered by students to learners in the schools consists of workshops and group sessions based on the themes in the Life Orientation⁶³ subject area of the school curriculum as

⁶³ According to the National Curriculum Statement issued by the Ministry of Basic Education of South Africa, '[The] Life Orientation Learning Area aims to empower learners to use their talents to achieve their full physical, intellectual, personal, emotional and social potential. Learners will develop the skills to relate positively and make a contribution to family, community and society, while practicing the values embedded in the Constitution. They will learn to exercise their constitutional rights and responsibilities, to respect the rights of others and to show tolerance for cultural and religious diversity in order to build a democratic society'

(<http://www.education.gov.za/LinkClick.aspx?fileticket=TmPNDABYSKE%3d&tabid=266&mid=720>)

well as on needs communicated by learners. Students would later reflect on these sessions which were written up as cases. As Hans explains:

It is not only that they are given a case - they must go and apply their theory to therapy. It is continuously monitored and there is this academic component to it as well, a write up, while at the same time they must manage their casework properly by writing weekly records or session notes.

In the course of researching this case, it became evident that other opportunities for the department to use service-learning as a pedagogic tool were available. However none emerge as clearly as the Community Psychology course in the first year of the Master's curriculum.

My focus now moves to discussing the intransitive domain (Bhaskar, 1978, see 2.3) in order to provide plausible answers to the questions of how and why service-learning emerges in this particular form in the Psychology Department at Rhodes University.

10.2 The Real

10.2.1 The domain of Structure

In this section the focus is on the structural conditions impacting on the emergence of service-learning in Psychology. In order to do this, I draw on my description of the general structural conditions discussed in Chapter Six (see 6.2).

10.2.1.1. The knowledge structure of Psychology

Psychology is a social science discipline and thus, drawing on Biglan's (1973a,b) typology, it can be classified as 'soft applied'. As I have indicated elsewhere in this thesis, others have elaborated on Biglan's typology (Kolb, 1981; Whitley, 1984; Trowler & Becher, 2001). A 'soft-applied' discipline is described as

... functional; utilitarian (know-how via soft knowledge); concerned with enhancement of [semi-] professional practice; uses case studies and case law to a large extent; results in protocols/procedures' (Becher & Trowler, 2001:36).

Hans points out that his discipline has two foci:

What is interesting about psychology is that it is both an applied profession and it is also an academic discipline.

According to Barnett (2006), disciplines preparing students for professional practice have a dual focus, an orientation towards the academy as well as an orientation towards the profession thus 'facing both ways' (2006:153). Hans draws attention to this:

I think the distinction is probably that it is both a discipline and a profession. I am more involved with the professional training, but there is also a discipline of theoretical Psychology where we draw lots obviously from in our application. But, then feedback through research, but it often feels very distinct that there are these two main, very different components.

Given this observation, it is clearly important that pedagogic strategies should ensure that the practical elements of the discipline are linked with its more theoretical aspects. With this in mind, some members of disciplinary community in South Africa agitated for contextual realities to be factored into curriculum design. This resulted, as Riona explains, in a strong move towards 'engaging in more critical Psychology':

Now, the reason for that has its historical roots in the mid 80's where there were some very brave psychologists who started to question the relevance of Psychology in the context of South Africa.

In apartheid South Africa, it was common for professions like Psychology to deliberately focus on, and be influenced by, approaches that made it possible to ignore the conditions and needs of the black majority. Individual therapy, for example, drawing on the work of theorists such as Freud or Jung, is time-consuming and costly. In addition, most psychologists were white and were not speakers of the indigenous African language. As a result, psychology in the apartheid era tended to focus on the needs of the white minority. Riona's description of the Psychologists who called for a more critical engagement as 'brave' is apt given that they were going against the established convention risking their professional reputation and status within the field. These 'brave' psychologists critiqued the value and relevance of Eurocentric models of Psychology, calling for models that took into account the contextual realities of the majority of the citizens of this country. On this basis I make the claim that the dual focus of this discipline enables the emergence of experiences related to the need for a different kind of psychology in South Africa.

By broadening the knowledge base of the discipline, a more critical and community-orientated model of Psychology emerged. Riona admits:

That kind of approach to psychology is not dominant, but it certainly is recognized and [is a] relatively well developed approach within South Africa, and less so internationally, which is quite interesting.

This is an indication that the disciplinary knowledge structure has, to some extent been altered, thus disputing some aspects Bernstein attributes to disciplines he describes as ‘singulars’. The introduction of a more community-orientated aspect of Psychology appears to challenge Bernstein’s pronouncement that singulars ‘produce a discourse, which was about only themselves’ (2000:9).

Bernstein, however, does acknowledge the shifts that singular knowledge structures undergo - shifts he terms ‘regionalisation’ (2000:9) or the recontextualisation of ‘singular’ knowledge structures into larger units. This shift occurs as singulars become more responsive to and dependent on the ‘market their output is serving’ (*ibid*:52). This would appear to capture Riona’s description of the concerns of the ‘brave’ psychologists in the apartheid era.

In the case of Psychology, the regionalisation of knowledge provides an opportunity for the emergence of a community-oriented approach conducive to the infusion of service-learning. This leads to the assertion that *regionalisation of knowledge* becomes a structural condition on which members in the department drew to enable the emergence of the Community Psychology course.

Trowler (2011) maintains that disciplines can be shaped and influenced by multi sites and contexts which, in turn, recontextualize academic life. The Psychology case illustrates this assertion. The growing number of members of the discipline who questioned the relevance of theories and interventions that seemed to collude with apartheid ideology led to a broadening of the discipline to include Community Psychology.

In the case of Psychology, therefore, it is apparent that the discipline structure is an enabling structural condition. As is also evident in the previous three cases, the discipline structure can have an impact on the curriculum structures.

10.2.1.2 The Psychology curriculum

At Rhodes University, the Department of Psychology is part of the Faculty of Humanities and students who major in Psychology with the intention of qualifying for postgraduate studies in this field register for a three-year BA or BSocSci degree.

The department signals that the emphasis, in the curriculum, is on:

... experiential, active and collaborative learning and a vision of research where theoretical and applied methods are highly valued (Psychology Department website).

The undergraduate programme offers courses in two fields, General Psychology and

Organizational Psychology.

Students are able to structure programmes leading to BA or BSocSc degrees in a wide variety of ways. Figures 17 and 18 illustrate two such routes to the degrees. To graduate with a BA degree, students need to complete 10 courses providing them with 360 credits. Of these 360 credits, 240 need to be shared equally between the two majors as illustrated in Figure 17.

A BSocSc degree is similarly structured. The difference is that credits have to be obtained as a major in one of the following subjects (the other major for the purposes of this case is assumed to be Organizational Psychology): Anthropology, Industrial and Economic Sociology, Sociology, Economics or Politics. Figure 18 illustrates this programme structure with Organization Psychology as one of the majors.

YEAR	SEMESTER 1				SEMESTER 2			
1	PSYCH ⁶⁴ 101	SOC 101	HIST 101	ENG 101	PSYCH 102	SOC 102	HIST 102	ENG 102
2	PSYCH 201	SOC 201	HIST 201	PHIL 101	PSYCH 202	SOC 202	HIST 202	PHIL 202
3	PSYCH 301		HIST 301		PSYCH 302		HIST 302	

Figure 17: An example of a B.A. curriculum with Psychology as a major

⁶⁴ See Appendix III for elaboration of course codes.

YEAR	SEMESTER 1				SEMESTER 2			
1	PSYCH 101	SOC 101	ANTH 101	ECOS 101	PSYCH 102	SOC 102	ANTH 102	ECOS 102
2	ORG PSYCH 201	IND SOC 201	ECOS 201	POL 101	ORG PSYCH 202	IND SOC 202	ECOS 202	POL 202
3	ORG PSYCH 301		IND SOC 301		ORG PSYCH 302		IND SOC 302	

Figure 18: An example of a B.Soc. Sci. degree with Organisational Psychology as a major

The Rhodes University Student Handbook, intended primarily for prospective students, provides information and examples of the different degree structures and the two figures above are adapted from it.

Upon completion of a bachelor's degree, students wanting to continue the study of psychology at postgraduate level would first need to complete an honours degree consisting of 120 credits. An honours degree then provides entrance to master's level study.

Competition for places on the programmes leading to a Master's degree in Clinical or Counselling Psychology is fierce and, as I have indicated, the department at Rhodes University can only offer training to six individuals in each specialisation per year.

The students admitted to the Master's programmes are therefore likely to have reached high levels of achievement in their undergraduate and honours degrees.

10.2.1.3 Curriculum decisions

The Department of Psychology at Rhodes University adopts a systematic approach to curriculum planning. Riona explains that a curriculum-planning meeting takes place annually. In this meeting, all members of the academic team participate in making joint decisions and in evaluating the broad outcomes of each year level:

When I first arrived we had a four-day one and then it went down to two and a half days and now it is standardly a two-day workshop that happens every year. And that is where we look at broad, brushstroke curriculum matters. So if we wanted to introduce service-learning at a particular level or if we wanted to talk about, you know, having practicals that run in a particular way . . .

The approach adopted by the Psychology Department is similar to what was presented in the other three cases, where planning leaves room for individual academics to make choices within the courses they teach. According to Boughey (2009) this approach is guided by what she refers to as a 'discourse of trust'. According to Boughey, this is a feature common to the group of five South African research-intensive universities. The academic is trusted by her colleagues to 'do the right thing' because as colleagues they share 'the same values and attitudes related to knowledge and what can count as knowledge production and because these values will then guide their practice' (Boughey, 2009:64). This, of course, assumes that colleagues are 'recognised' as colleagues. The possibility of a member of staff being perceived as different or 'other' because of the values and ideas s/he brings to the department, her/his social and academic background and so on exists. In this case, the discourse of trust might be tested. Conceivably this could happen where an individual was trying to introduce ideas related to pedagogy.

In Psychology, the lecturer has autonomy over her own course. During weekly staff meetings the practice is to share progress or processes within courses and to expect feedback in a collegial atmosphere. This is an indication that the lecturer has a large degree of control over the instructional discourse (Bernstein, 2000). As in the Philosophy case, this approach to curriculum decision-making illustrates how full time academics in the Psychology department exercise their agency in relation to what Bernstein (1996, 2000) terms the 'Official Recontextualized Field' (see 3.2.4).

Hans points out that, at postgraduate level, specifically at Master's level, the curriculum is focused on professional practice regardless of whether the student specialises in Counselling Psychology or Clinical Psychology:

Here at the clinic is a focus on Master's level training, just before they move into internships. It is professional psychologists, applied professional clinical and counselling psychologists who are trained.

This indicates that curriculum decisions would need to pay particular attention paid to Bernstein's (1996, 2000) Pedagogic Recontextualizing Field regulating the pedagogic identities to be taken up and enacted.

On the surface, the Psychology Department's *Student Handbook* seems to serve a similar function as the handbook provided to Philosophy students. However, a closer inspection indicates that the Philosophy student handbook affords insights into what Bernstein (2000:13) terms as the *discursive order* of the discipline exemplified in the section relating to plagiarism.

Get into the habit of building up your notes *actively*, instead of *passively*. Your notes should be a record of your developing understanding and thinking (*What could this possibly mean? Should I accept these views? What are the alternatives? What are the difficulties and objections?*⁶⁵), not a mere collection of passively recorded opinions (The Philosophy Handbook, 2011: 18).

In comparison, the focus of the Psychology Student Handbook is towards the *social order* (Bernstein, 2000:13). This forty-page document concentrates on outlining the hierarchical associations in the pedagogic relations, specifying the conduct and regulations that students are expected to adhere to. This is clearly stated in the first paragraph:

This handbook is designed to give you all the facts. It outlines guides for communicating within the Department and includes information about lecturers, basic rules and directs you to where you can get tips for referencing (Department of Psychology Student Handbook, 2011:1).

10.2.1.4 Disciplinary identity

It would seem that it is possible to take up a range of different disciplinary identities within in the broader Psychology community depending on the trajectory followed in a particular context. As Riona indicates:

What is happening is that with Psychology in the United Kingdom there is a kind of defining of what Psychology is as in, 'It is about experimental design'. It is very much about kind of issues around cognitive processing. There is much more of a kind of closing down of what they can and cannot do in terms of the discipline. Whereas in South Africa there is quite a strong move towards a more . . . it's not

⁶⁵ Emphasis retained from the original text.

dominant but there is a strong movement of people engaging in a more critical Psychology.

Critical Psychology is based on a social constructionist framework and is generally used within specialized areas such as Community Psychology. Mayte explains that the adoption of a social constructionist framework provides:

... a completely new way of seeing and understanding of what the role and the identity of the psychologist is in a community setting in current South Africa, when identities and power dynamics are at a state of, a time of, huge flux.

This adoption of a new framework that challenges the identity of the members of the discipline can be linked to the assertions made by Knorr-Centina (1982) about the value of academic disciplines and what is at stake. Apartheid impacted on the discipline of Psychology in particular ways. Of significance is Riona's assertion that it became a 'deeply racialized discipline' resulting in the very few registered black psychologists in South Africa and very little questioning of the relevance of the 'Eurocentrism of Psychology'.

According to Stead (2002:279), gradual ideological shifts have become apparent following the move to democracy:

South African psychology is striving to become more appropriate to the majority of its peoples, whether it be on the professional or research fronts. There is a desire to develop indigenous epistemologies and not to become excessively reliant on Euro-American epistemological traditions. Psychology is struggling to make mental health resources available to all South Africans.

Riona traces the roots of these gradual shifts to psychologists starting to question the relevance of the discipline given the human experiences emerging from the political upheavals of the 1980s in South Africa. Up until the 1980s, very few historically white universities admitted black students to study Psychology, thus keeping the number of black registered psychologists low (Nicholas, Pretorius & Naidoo, 1999). In the 1990s, the number of registered black psychologists grew sufficiently for a critical mass to develop and argue for a shift in the discipline and thus, as Riona explains 'chang[ing] the thinking around what Psychology is and what psychologists can and cannot do'. Seedat (1990 in Stead, 2002:80) exemplifies this in his argument for therapy that involves addressing the underlying issues leading to 'psychological problems of many clients, such as detention, imprisonment, and compulsory military conscription.

Riona maintains that the shifts in psychology do not detract from its traditional undertakings but rather they:

... broaden the definition of the kinds of activities that psychologists can be involved with much more.

At Master's level, the Department of Psychology offers more traditional, analytical, training as well as community-based training to its students. As a result, Masters students are involved in developing preventative interventions for groups in schools as well as being exposed to traditional individual one-on-one referrals in the Clinic and Counselling Centre.

The adoption of a social emancipatory agenda can be seen as a response to conditions prevailing long after the demise of apartheid. By adopting a more critical stance, academics in the Department of Psychology at Rhodes University have demonstrated a positive response to the call for higher education to engage with communities outside the academy. In the Department, a more community-focused model of Psychology has become more dominant and, in doing so, has replaced more traditional models adopted by other sections of the disciplinary community. As a result of this process, it has become possible for members of the Department to take up alternative identities *vis a vis* the discipline which are more directly linked to a new social contract between the academy and the communities in which it exists (see 1.2).

This is not to say that all members of the Department have chosen to take up the stance adopted by Riona and others. Riona points out that, within the department, there are colleagues like her who draw on what she terms a *Critical Mental Health* discourse and therefore on grounded approaches that:

... lend themselves much more to an understanding of community engagement with a sort of a feeling that this is what we ought to be doing and a kind of sense of wanting to engage with service-learning.

Other individuals in the Department continue to draw on more traditional approaches and, in keeping with the discourse of *Academic Freedom* identified in other cases, the choice of approach is left to the individual:

I mean obviously people also take, I mean people teach in particular ways and include particular things you know? We do not kind of police individuals you know?

This point is also emphasised by Hans who notes:

We teach towards the strength of our staff .

The existence of different theoretical approaches within one discipline is customary amongst disciplines that exhibit a horizontal knowledge structure such as Psychology. As I have indicated in Chapter Three, as these disciplines:

... consist of an array of languages, any one transmission necessarily entails some selection, and some privileging within the set recontextualised for the transmission of the *Horizontal Knowledge Structure*' (Bernstein, 2000:164).

As a result, the perspective of individuals who control the pedagogic device becomes the recontextualising principle. Particular members of the discipline in crucial positions come to exercise a dominant perspective. This then confirms Riona's observation that:

I think with anything it does help to have more senior people, you know, who are doing that championing.

As mentioned earlier, the Psychology Department boasts a large academic staff and therefore a range of research activities and interests are evident. The Department, through its website, positions the importance of research by describing it as an everyday activity conducted by all staff members. Research is also endorsed in the *Departmental Mission Statement*, which outlines the commitment to research as well as sanctioning particular research outcomes. As a result, some of the aims in the statement involve '[p]roviding an infrastructure to promote high quality research and its publication by staff and students' as well as '[e]ncouraging staff and students to develop teaching, intervention and research programmes that promote community engagement' (<http://www.ru.ac.za/v3psychology/psychology/missionstatement/>).

Perusal of institutional research reports (see, for example, Rhodes University's 2010 Research Report) would suggest that Mode 1 knowledge production is prevalent in this department at the individual level⁶⁶. However, this seems to shift when staff members pursue more collegial, project-based research focusing on Mode 2 type knowledge production. An example of such a project is the multidisciplinary and multi-institutional programme entitled 'Critical Sexual and Reproductive Health Studies' led by Riona and a well-respected colleague from the Department of Political and International Studies at Rhodes University.

In the case of Psychology, a research focus impacts on the emergence of service-learning when the research agenda of individual and collaborative projects draws on a *Critical Mental Health* discourse. This is because research output is considered very important in the

⁶⁶ I would argue that the following entry, for example, is indicative of Mode 1 knowledge: Frosch, S. & Saville Young, L. (2010) 'Using psychoanalytic methodology in psychosocial research. Researching brothers.' *Qualitative Inquiry*, 17(1):45-55.

University and gives recognition and status for individuals as well as disciplinary communities. Therefore it is plausible to assert that the theoretical approaches chosen for research are also used to inform and frame pedagogic and curriculum choices.

10.2.1.5 Structuring pedagogy

In interpreting Riona's statement below it would seem that teaching, research and community engagement are not perceived as three discrete activities:

I mean [community engagement] needs to be fundamentally linked to the other two pillars, and to show how and what way it is essential to those two pillars, and in fact how ... we engage with a community's practice through teaching and through research. We do it all the time.

In a recent publication, the Community Engagement Directorate at the University echoes a similar understanding of the relationship between these core activities:

However, to think of community engagement separately to teaching and research would be missing the point. Community engagement activities at Rhodes are going beyond the traditional 'good deed' approach to occupy a more critical and strategic role of enhancing scholarship, development, social cohesion and social transformation (Community Engagement, 2011: A Critical Pillar: 1).

In the case of Psychology, there seems to be no evidence of a discourse trivialising teaching. It is, however, the younger colleagues, or those who have recently joined the department, who more readily draw on the academic staff development opportunities aimed at enhancing teaching practice available in the University. The reason that this particular group may show this kind of interest in teaching may well be linked to university policies promoting the importance of teaching and learning by requiring staff to show competence in areas such as assessment in order to achieve tenure or personal promotion. As a result, it is newer and more junior staff members who tend to enrol in programmes leading to formal qualifications in teaching in higher education. Although the formal qualifications are not required by the University (academics are only required to demonstrate competence), some academics in the Department have completed a Post Graduate Diploma in Higher Education and, even more impressively, a Master's degree in Higher Education Studies. This shows how both structures such as institutional policies and discourses promoting teaching and learning can be conducive to focused attention being paid to teaching.

Mayte, Riona and Hans all refer to the changes in the institutional discourse pertaining to community engagement and indicate the impact this has on the departmental discourse. Riona, for example, indicates that, prior to the arrival of the current Vice Chancellor, there was no indication that the senior leadership structures of the University were either aware, or actively supportive, of the various scholarly community engagement activities that the Psychology Department had engaged in:

I must say that I am very optimistic for the noises that I hear and the kind of support that this project has directly from Dr Badat, you know? He knows about this, he has taken it through whatever committees. It has been given credibility by the University. I know that Dr Mabizela has been very supportive of this kind of learning endeavour. So I am very optimistic that it is not the same fight that it had been 12 or 15 years ago, you know?

The 'project' that is referred to above is the School Partnership Programme, an initiative involving different departments from Rhodes University and local schools and which is aimed at addressing the dire educational inequalities which still exist in South Africa. Interventions offered at the schools as part of the Community Psychology course form part of this programme.

As I will argue in the section on the domain of culture, below, however, the benefit derived from the support of the senior leadership structures (including the Vice Chancellorate and the Directorate of Community Engagement) at the University seems to be through the development of a discursive climate conducive to community engagement and, thus, to service-learning activities.

10.2.1.6 Size, location and organisational structures

At undergraduate level, the opportunities for using service-learning as a pedagogic tool are constrained predominately by logistics. Year one classes in Psychology are the largest with six hundred and fifty students. These taper in year three to two hundred and ninety and, according to Riona, it is a 'logistical nightmare' to transport students to and from the campus for learning opportunities associated with service-learning. The large class sizes therefore appear to constrain the infusion of service-learning in the lower levels of the undergraduate curriculum in this department.

Hans, however, acknowledges the long-standing concern for engagement with communities in the department and indicates ways in which service-learning could be infused other than in a fully fledged course:

I have been at Rhodes now for 11 years and, in a sense, ever since I got here, it has always been a part of what Psychology has done - from Master's level right through to third year. I think it is probably the lowest that we go, simply because of big classes. But there are third year practicals where they would . . . just an example that I am thinking of now, is that currently they would go out and they would engage with a community around a specific topic and they would do a little bit of research, and they would compile a pamphlet with tips of how to work with a ADHD child . . . Compile a pamphlet but then feed it back into the community where they got the information from in the first place. So that kind of thing has always been happening and is still happening.

At postgraduate levels, however, the Psychology Clinic and Counselling Centre, specifically designed for clinical training, become part of the structure supporting the community engaged teaching framework that the Department emphasises:

I mean we have always had the Psychology Clinic, which has been a community engagement and a service-learning site. And we still have it as a very strong component of the clinic where the students interface with community members and offer services around therapy and assessment.

The teaching opportunities at the Psychology Clinic would fall within the internship aspect of the community engagement continuum (see 1.2). However, as Hans indicates, other community-engaged aspects feature in teaching:

I think in Psychology we had always been doing various levels - different practicals which we never labelled as service-learning, but which certainly had a number of service-learning components.

Hans further elaborates that these community engagement opportunities are possible to conceptualize within 'the applied side of Psychology, it is easier to see, it is there, it is clear, you know'. He points to the fact that, within the applied areas of Psychology, students are required to have practical experience of working with people and communities in contexts. As a result, community engaged teaching such as the use of service-learning, is enabled.

As ideal as community engaged teaching could be portrayed, Riona identifies some of the pitfalls associated with the learning process as well as with the relationship between the Department (which represents the University) and the communities with which it partners:

If we are going to engage with communities, we have to do so on a basis that is not sort of hopping in, hopping out, hopping in, hopping out. I suppose that is the issue you know. And it is one thing to say that service-learning is a good thing, but I think

sometimes what I am very weary of is two things: one, the potential for ‘othering’ that happens. And the ‘othering’ can happen in two ways, the voyeuristic of these very odd people, it can also be a sense of ‘Oh, these exotic people’ and then the third way is ‘Oh these poor people, they need my help’ and becoming incredibly paternalistic and whatever, you know? Now being aware of that you know, so I think one has to tread incredibly cautiously when you start engaging in service-learning because there are particular power relations and hierarchies.

Here, Riona points to the way the interplay of the structures of race and social class in a country such as South Africa could lead to undesirable events and experiences related to service-learning. As already indicated in this thesis, Rhodes University is one of a small group of ‘research-intensive’ South African universities. Because of this, its entrance criteria are substantially more demanding than those at other institutions. One result of this is that students tend to come from middle class, privileged backgrounds. These students then study at a university located in an area suffering enormous poverty and, on service-learning placements, may well encounter social conditions they had never envisaged. As a result, responses such as those identified by Riona emerge.

Mayte elaborates on the experiences of students in the following way:

... these middle-class people are having to learn about how the majority of citizens in South Africa live, and what issues of psychological wellbeing are for people who live in spaces that are extremely vulnerable to the shocks and stresses of things like poverty and hunger and physical abuse. So, in terms of the learners and engaging with the learners, in terms of being in the physical school environment, there are those often very visceral experiences of physically being in a space that is ‘other’ to any other space they have ever been in.

All this points to the need for service-learning courses in a country such as South Africa to be managed very carefully.

In line with the other cases in this study, the resourcing of the service-learning course in psychology does not appear to be an issue. Hans notes:

You can get a long way without money. I mean you can obviously do much better things if you have the funding. It does not take money to prepare students here and then they go out to schools there, it is a little bit of petrol money that is really the expense.

Clearly, if numbers were larger than the twelve students admitted to the Clinical and Counselling Master's programmes, then funding might be more important. For this course, however, it is not a problem.

In other cases, time has also emerged as an issue related to the emergence of service-learning. This is especially the case if service-learning courses are conceptualized as a 'normal' academic load. It is important to note that Mayte is not a permanent member of the academic staff of the Department of Psychology. She is employed on a temporary, part-time basis for her expertise in field of Community Psychology and lectures and facilitates the course for one morning per week, for five months per year as students go into the community.

Bringing in outside expertise has the advantage of enabling the achievement of depth. However, the disadvantage is that the lecturer has peripheral status in the department and therefore may not be part of formal and informal discussions related to various courses. As a result, the individual is reliant on colleagues who draw on the same discourses to champion the course from the margins into more mainstream status.

Rhodes University's Vice Chancellor, who is seen as a champion of community engaged activities, draws attention to problems in funding posts such as Mayte's:

While a university has the autonomy to spend the block grant that the Department of Higher Education & Training provides to universities as a subsidy, the current funding framework does not specifically provide support for community engagement either in the block grant or as earmarked funding (Badat, 2011).

At Rhodes University, as in any university, the pressure for academic posts is acute. The small size of the University, however, makes funding for academic posts particularly problematic given that the state teaching subsidy is allocated proportionally on the basis of 'heads' in the system. Rhodes University is the smallest public university in South Africa and, as the system grows, it is vulnerable to proportional shifts and their effects on the subsidy. The location of the University in a small town means that it is unable to grow at the same rate as some of the larger urban universities in South Africa – especially since infrastructure in the town is also a problem. As a result, the likelihood of the creation of permanent positions related to service-learning in departments with the potential to infuse service-learning is limited⁶⁷.

⁶⁷ I was appointed to an 'Accelerated Development' position at Rhodes University funded by the Mellon Foundation in 2007. The position allowed me more time to complete my doctoral studies by reducing my academic workload by 50%. At the end of the three years of this contract position, I was

According to Mayte, students are aware that the Community Psychology course is facilitated by someone who is not a permanent member of the academic staff and this contributes to its marginalised status in the eyes of students:

[My position] tacitly kind of marginalizes the programme and I think particularly last year the students really got that you know and initially dismissed the programme. And we had a bit of an argy bargee moment when I was getting really awful drafts of their report and I would kind of write this really long thing about what was expected and send it to all the students and the Head of Department and everybody sat bolt upright with big eyes, and suddenly realized that this is serious.

Thankfully, the status of the course now appears to be improving:

I mean historically I do not think it even competed, it has been given a little spot somewhere in the week. Now that it is gaining more and more significance and prominence within the thinking of the department, the time problem is less. We will not get more than six months, that is it. It is less than six months when you count in the exam times.

The status of the course (which I would locate as an experience on the part of students at the level of the Empirical in Bhaskar's framework) thus appears to emerge from the discursive privileging by students of approaches and theories that do not draw on the social constructionism framing Community Psychology by agents within the Department. These experiences, however, are then impacted by the championing of the course by key members of the academic staff such as Riona.

This concludes my discussion of the structural domain. I now move into an analysis of the domain of culture.

allocated a permanent position in CHERTL. The motivation for this permanent position was on the basis of the need for some expertise in service-learning in the University as a whole. CHERTL was required to carry 50% of the cost of my permanent position for three years. I have included this information to illustrate the problems related to funding for teaching positions related to service-learning.

10.2.2 The domain of Culture

10.2.2.1 Constructing psychological problems

The nature of disciplines is that there is always a set of competing theories that members of the discipline can choose to draw on. According to Riona, psychologists draw from two broad sets of theories: those locating psychological problems in the individual autonomous psyche referred to as '*Psychodynamic Approaches*' (added to this category is the behavioural approach also taught in Rhodes University's Psychology Department) and those that understand psychological problems to be located in society, a structurally located approach referred to as '*Critical Mental Health*' (*CMH*). In the context of this thesis, these two approaches are understood as discursively constructed and analysable as discourses.

The *Psychodynamic Approaches* discourse draws on theories⁶⁸ that indicate that human functioning is based on motivations and energies within the individual. Riona summarises *CHM* (which can also include the 'public mental health' approach) as a discourse drawing on social constructionist theories and which foregrounds the politicized arena of gender, race, sexual orientation. She explains that *CHM* attempts:

... to understand psychology as a discipline that not only is interested in what goes on in the interior of the person, but how social and political processes are deeply intermingled in those sorts of internal processes.

In both discourses there are a range of theories that agents draw from to inform their practice as psychologists, lecturers and researchers.

10.2.2.2 Academic Freedom

Another discourse identified in the data for the Psychology case is the *Academic Freedom* discourse. This discourse was also apparent in data analysed for the previous three cases. This discourse, as indicated earlier in this thesis, linked to the 'discourse of trust' identified by Boughey (2009) as prominent in research-intensive institutions like Rhodes University.

Although the practice of Psychology is regulated by a professional board that imposes some requirements on the curriculum, academics in this department exercise agency in making

⁶⁸ Associated with theorists such as Freud (1900), Jung (1964), Erikson (1950).

curriculum decisions. As I have indicated, Hans notes that academics teach to their strengths while also being aware of the need for curriculum discussion at department level. As Head of Department, Riona concurs with Hans by noting ‘we do not kind of police individuals’.

The *Academic Freedom* discourse is instrumental in ensuring that academics at Rhodes University exercise their autonomy over curriculum and research decisions regardless of whether they draw on *CHM* discourse or the *Psychodynamic Approaches* discourse.

10.2.2.3 Valuing Pedagogy and Valuing Research

In the Department of Psychology, both teaching and research are significant with both activities receiving equal attention. This is unlike some other departments where research activities are prioritised over teaching. Academics in the Department of Psychology understand both teaching and research to be important elements of their academic work, thus making it possible to identify the *Valuing Pedagogy* discourse and the *Valuing Research* discourse in data pertaining to the case with neither appearing to dominate the other.

10.2.3 The domain of Agency

In a young democracy like South Africa, institutions of higher education are expected to contribute by demonstrating social responsiveness to many of the challenges faced in society. Disciplines like Psychology are perceived to have a valuable contribution to make and this contribution is seen to be more relevant when agents take account of what Seedat (1997) terms ‘liberatory knowledge’ in their teaching and research.

In the case of Psychology, it is clear that social actors in the Department such as Riona play a key role in drawing on this ‘liberatory knowledge’ in order to effect the emergence of the service-learning course. The discourse of *Academic Freedom*, identified in all four cases, allows her to do this whilst, at the same time, allowing other academics in the Department the liberty to draw on more traditional discourses constructing psychological knowledge and practice. As I have indicated, however, Riona’s role as HoD and full professor have clearly allowed control to be gained of the pedagogical device in the context of the service-learning course.

Riona, however, not only points to the need for an individual with academic status to champion service-learning but also to the somewhat hit and miss likelihood of such a person being available:

You know it is a ... I think with anything it does help to have more senior people, you know, who are doing that championing. I mean I know that previously there was this person, Geoff, in the department who was doing it. But he was at a relatively junior level and so was sort of you know ... overridden by other voices. So a certain level of seniority helps. But also there really is a difference in terms of who gets appointed, it sounds odd but ja ... when you have people appointed in the department who take a particular kind of theoretical approach that then lends itself much more.

While the Department could have searched for a full professor who drew on approaches conducive to the emergence of service-learning, in a country like South African with a relatively small academic pool, such a person might not always have been available. In addition, the presence of the 'other voices' in the Department might have led to the search for a senior person going in an entirely different direction.

Riona goes on to note that, once a senior person who is able to change perceptions of the department in the wider academic community has been appointed, then other, like-minded academics are likely to apply for positions:

If a particular department takes a particular approach they get known for being good at this or researching in this kind of way or teaching in this kind of way. And then when posts become vacant, people you know who are looking to apply at places, they look to see what kind of work is being done in this department. How are things run, you know? And they talk to colleagues as well. So if a particular department gets known for particular kinds of ways of doing things, then you attract applications for you know ... from like-minded people.

Riona has been joined by another full professor who also draws on *CMH* discourses in recent years. Riona, Hans and others also draw on the organisational structures of the Master's programme that requires students to engage in experiential learning. This then allows them to mitigate problems related to numbers and to funding.

Students, as in the other cases, also function as a group of corporate agents – in this case picking up on what they perceive as the 'marginalised' status of the course thanks to Mayte's position on the periphery of the department and on the availability of discourses that promote traditional approaches to psychology. Their response is then to downplay the significance of the course in their workload and Mayte, in response, needed to draw on Riona's agency as a social actor to assert its importance once again. Students' status as a group of corporate agents who are middle class and (largely) white also impact on this case at the levels of the Empirical and Actual since their responses to the social conditions of the learners in the school have the potential to lead to the emergence of what might be termed 'negative' events

and experiences as they engage in service-learning both for themselves and for the learners in the schools.

10.4 Conclusion

The following diagram attempts to capture the dynamism involved in the emergence of the service-learning course in psychology at Rhodes University.

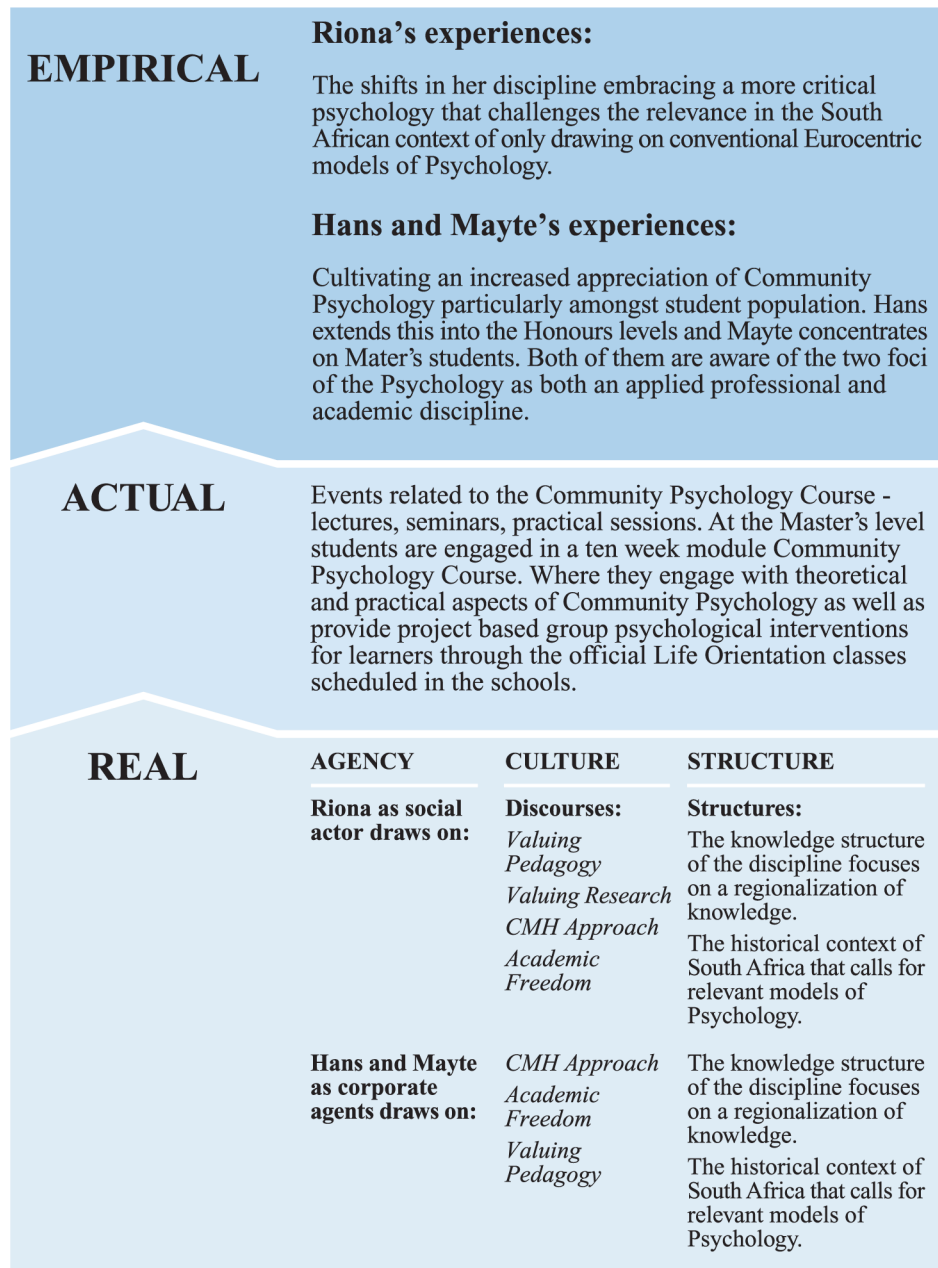


Figure 19: Psychology concluding diagram

Chapter Eleven: Accounting for where, how and why in the emergence of service-learning

11.1 Introduction

As I have indicated throughout this thesis, a critical realist orientation to research requires a movement from experiences and observations reported at the levels of the Empirical and the Actual to an exploration of the structures and mechanisms contributing to their emergence at the level of the Real. In the case of my study, I aimed to work from the observations and experiences reported by individuals in a series of interviews to an identification of the conditions enabling and constraining the emergence of service-learning.

Once these structures and mechanisms have been identified, it is possible to move ‘from an ‘is’ to an ‘ought’, or from ... fact to value, or from an indicative to an imperative’ (Bhaskar & Collier 1998:385). Accordingly, in this chapter I conclude my study by exploring the implications of the structures and mechanisms I have identified for the emergence of service-learning. I do this by looking across the four cases reported on in Chapters Seven, Eight, Nine and Ten in order to produce a cross-case analysis.

The use of Archer’s (1995a, 1996) social realism in conjunction with Bhaskar’s (1989) critical realism allowed me to arrive at a more nuanced understanding of the conditions enabling and constraining the emergence of service-learning. Archer (1996) insists on the temporal distinction of the ‘parts’ and the ‘people’ for purposes of analysis. In my research, as part of my analysis of the ‘parts’, I further separated the domain of culture from the domain of structure. Again, this was for analytical convenience only.

I also employed Bernsteinian (1996, 1999, 2000) concepts as substantive theory. The use of Bernstein’s work allowed me to deepen my understanding of the domain of structure in particular in that it provided me with a language to describe events in the curriculum located at the level of the Actual, and to account for experiences of those events, located at the level of the Empirical. More specifically, Bernstein’s (*ibid*) work provided a means of understanding the influence of disciplinary knowledge structures on curriculum decisions impacting on the emergence of service-learning.

Before proceeding to my cross case analysis, I need to discuss the significance of the institutional context on the four cases. I maintain that the institutional type, structure and culture have considerable bearing on the systemic factors enabling and constraining service-learning.

11.2 Significance of the institution

As I have indicated in Chapter Six of this thesis, in 1994, the new democratically elected government of South Africa was faced with the need to balance challenges related to effectiveness, efficiency and equity simultaneously as it sought to engage with the demands of globalisation whilst, at the same time, addressing the legacy of apartheid.

In the early 2000s, the South African higher education system was reconfigured according to ‘the levels and kinds of programmes offered, the teaching and research capabilities of institutions, the human and physical resources of institutions, the qualifications of staff and other features’ (CHE, 2000:23).

As part of this reconfiguration, institutions were classified as ‘traditional’ universities, universities of technology or ‘comprehensive’ universities. More recently, and as mentioned earlier (see 1.1 and 6.2.1) Rhodes University has been identified as one of five ‘research-intensive’ universities in South Africa (CHET, 2010). Rhodes University manages to occupy this niche in spite of being the smallest publically funded university in the country. These two characteristics (i.e. the categorisation as ‘research intensive’ and size contribute to the emergence of service-learning in significant ways.

Size contributes because of the comparatively low number of students needing to be considered when decisions about service-learning are made. Nonetheless, as my cross-case analysis in this chapter will show, student numbers still constrain emergence in the first year or two of a disciplinary curriculum.

Size also impacts in other ways, however. As a small institution, Rhodes University cannot benefit from the same economies of scale as larger institutions. It is also particularly vulnerable to increases in enrolments in the higher education system overall as subsidy for teaching is awarded proportionally. Should the University’s share of overall enrolments fall because other universities have increased their enrolments, then the subsidy received would be less. The location of the University in a small town with limited infrastructure then constrains growth in student numbers.

This then means that income from research becomes particularly important. The significance of research income to the financial viability of the institution then combines with the niche the University occupies to afford a privileged status to research in comparison to the two other core functions of teaching and learning and community engagement.

Bernstein (1996, 1999) reminds us that knowledge is varied, therefore its acquisition, production and validation differs. The different forms of knowledge are unequal with

theoretical knowledge expressed through vertical discourse being more socially powerful than more practical, experiential knowledge expressed through horizontal discourse.

In a university (and particularly, I would argue, in a research intensive university) vertical discourse is privileged over horizontal discourse and attempts to link vertical discourse with horizontal discourse through service-learning can be seen as a weakening of the 'sacred' knowledge of the vertical discourse. This is exemplified particularly well by the case of Philosophy where participation in the GADRA course is resisted by staff arguably because engagement with profane knowledge is not experienced as 'real' philosophy.

Having provided these comments on institutional level constraints and enablements, I now draw on the cases to provide a more 'close-up' account.

11.3 Significant findings

In the sections that follow, I identify structures and mechanisms across all four cases. In doing this, I follow the format of the cases themselves in that, firstly, I look at the domain of structure before moving to a discussion of the domain of culture. I conclude by looking at agency. My aim in this section is to identify the conditions enabling and constraining the emergence of service-learning at Rhodes University.

11.3.1 The domain of structure

11.3.1.1 Academic structures

Apparent in all four cases is the way academic structures enable or constrain emergence. For example, the timetable, as a structure, constrains the emergence of service-learning in the undergraduate years because of the division of teaching into forty five minute teaching slots. The need for flexibility was identified by Tim, for example, who argued that forty-five minutes was simply insufficient to allow for service-learning.

The curriculum is also a structure and, at the most obvious level, this constrains the emergence of service-learning in the early undergraduate years because of the way students are funnelled through year one and year two courses to two majors at year three level. As I have indicated in my discussion of the cases, students need a minimum of 240 credits in their two majors (i.e. 120 credits in each). The remaining credits result from other subjects taken at year one and year two level. This means that student numbers are greater in year one and year two classes and, as several interviewees pointed out, it is logistically difficult to organise

service-learning for large classes. The result is that where service-learning does emerge, it tends to emerge higher up the curriculum structure at year three or at postgraduate levels.

Across all four cases, the knowledge structure of the discipline emerges as influential in enabling or constraining the emergence of service-learning. The emphasis on applied knowledge in Entomology can be seen as enabling. Tim draws on this, in conjunction with other mechanisms, in order to allow for the emergence of the Cultural Entomology course. Applied knowledge in a 'hard pure' (Biglan, 1973a, b) discipline is an indication of weakened classification (Bernstein, 2000) making it possible to use service-learning as a pedagogic tool. However, at the undergraduate level, the hierarchal knowledge structure of a hard pure discipline privileges content over context and declarative over procedural knowledge. This then constrains the emergence of service-learning.

Environmental Science is a 'hard applied' discipline (Biglan, *ibid*) that draws extensively on the construct of Mode 2 knowledge. This means that agents conditioned by the discipline 'naturally' turn to context and the infusion of service-learning becomes a means of allowing them to do this. In addition, Environmental Science is a region that draws on singulars (i.e. single disciplines) as a base to allow it to face outwards. The discipline therefore draws on Mode 1 knowledge as its base but is concerned with the production of Mode 2 knowledge. This too impacts on the emergence of service-learning.

As a 'soft applied' discipline (Biglan, *ibid*), Psychology also turns naturally to the external world although, for service-learning to emerge in this case, actors need to draw on discourses privileging one particular model of practice – Community Psychology. In the case of Psychology, therefore, the 'applied' status alone is not sufficient to ensure emergence.

What appears to be the case, therefore, is that the nature of the disciplinary knowledge structure and the impact of this structure on disciplinary identities contribute to emergence. An 'applied' element in the disciplinary structure is conducive to emergence. The case of Philosophy is the exception that adds to this observation. Given its 'soft pure' nature (Biglan, *ibid*), the discipline and its adherents face inwards talking 'to themselves'. As a result, the GADRA course only emerges because of the way students, as a group of corporate agents, draw on discourses related to social responsibility and volunteerism dominant at Rhodes University.

Yet another academic structure is the academic hierarchy. Agents' location in this structure affords them personal emergent powers and properties (PEPs). In Entomology, for example, Tim derives power from his status as a full professor and because of the status his research endeavours accord him in a research intensive university. Similarly, in the case of Psychology, Riona derives power from her status as Head of Department and full professor.

In Environmental Science, a group of corporate agents draw on the power of social actor Chaplin who holds a prestigious research chair and full professor status to validate their work. In Philosophy, on the other hand, the students involved in the GADRA course are constrained by the academic hierarchy in which they have no status. As a result, their efforts fall outside the formal curriculum. In the case of Psychology, Mayte similarly has little status in the academic hierarchy and this leads to the emergence of perceptions on the part of students that they can afford to pay little attention to the course she runs. As the case shows, Mayte had to draw on the status of others in order to assert her personal emergent powers and properties and insist that students handed in work on time and so on.

11.3.1.2 Funding

Funding also emerges as a structure impacting on the emergence of service-learning. As I have indicated, research subsidy is critical to a small university in the South African higher education system because of the proportional nature of government subsidy earned for teaching. As a result, the ability of staff to produce research outputs affords them greater credibility in institutional culture and also brings rewards and recognition. The quest for, and desire to attain, research outputs impacts on emergence because agents are drawn towards privileging research over teaching.

In a research-intensive institution such as Rhodes University, however, the discursive privileging of research then impacts on the *form* of emergence. It is significant that three of the four cases of service-learning require students to conduct some research. Service-learning could thus be discursively construed as a means to an end – as a way of allowing students to engage with alternative research methodologies (as in the case of Entomology), or in the production of research which solves problems (as in the case of Environmental Science). In Psychology, students are required to complete a report on their work in schools. This then forms part of the mark awarded for the ‘research component’ of the Master’s degree. Once again, service-learning is constructed within the discursively privileged space of research.

Funding for service-learning interventions does not appear to be a constraining mechanism. Several interviewees noted that costs for interventions were not an issue and, even where money was needed (as in Environmental Science) agents had been able to identify the use of the ‘resale’ account to allow for emergence. However, the fact that funding for actual interventions does not appear to be a constraining factor is arguably impacted i) by the location of Rhodes University in a small town and ii) by the small number of students involved in the interventions. Here we see the interplay of a number of mechanisms

impacting on emergence with the result that it is not possible to argue categorically that funding is not a constraining mechanism.

I now move to look at cultural conditions.

11.3.2 The domain of culture

In this section, I move to look at discourses common across all three cases and the way they constrain or enable emergence.

11.3.2.1 Academic Freedom

It is perhaps predictable that the construct of academic freedom should be discursively privileged in a traditional English speaking ‘liberal’ university in South Africa (see 6.2.1). Across all four cases, discourses privileging academic freedom are evident and can be identified as mechanisms on which agents draw to exercise their personal emergent powers and properties (PEPs). Although all public institutions of higher education in South Africa are afforded the rights and privileges associated with academic freedom, at institutions like Rhodes University perceived encroachments are fiercely guarded against (Quinn, 2008). These encroachments can be perceived as emanating from bodies such as the South African Qualifications Authority (SAQA), the Council on Higher Education (CHE), the Higher Education Quality Committee (HEQC) or even the institutional management team.

Were service-learning *mandated* at Rhodes University, one might expect agents to respond to this perceived encroachment on their freedom and independence with protest. However, in all the cases of actual service-learning in the study, agents voluntarily exercised their personal powers and properties to contribute to the emergence of the service-learning courses in their Departments. In order to do this, they drew on discourses privileging academic freedom in order to allow them the space to pursue an interest in this form of teaching in the face of a lack of interest from other members of their Departments. As they did this, their colleagues also drew on discourses privileging academic freedom to exempt themselves from engaging with service-learning but also to recognise the rights of those involving themselves with this form of learning to do as they saw fit. In some respects this also applies to Philosophy. In this case, academics in the Department exercised their freedom to pursue the study of philosophy in ways they saw as appropriate – i.e. by talking to other initiates within the discipline. They were able to ignore calls for service-learning to be infused in curricula but,

at the same time, they allowed their students the space to engage with learners from the local community in the GADRA course.

11.3.2.2 Valuing Research

I have discussed the impact of research funding as a structure on the emergence of service-learning in section 11.3.1.2 above. I now turn to the discursive privileging of research at Rhodes University. In all four cases, research emerges as *the* academic priority. It is the area of academic endeavour from which individuals derive the most pleasure and also which contributes to their sense of disciplinary identity. While the privileging of research over teaching could be seen to constrain emergence, discourses valuing research arguably contribute to the emergence of a particular research-based form of service-learning. In this respect, my study affirms Pollack's (1999) identification of forms of community engagement emanating from research-based institutions.

Importantly, discourses privileging research need to be considered in conjunction with those privileging academic freedom. Both discourses are drawn on by agents in all four cases. The Entomology case illustrates how the same discourses can act to lead to different kinds of emergence. Tim draws on both discourses to contribute to the emergence of service-learning whilst his colleagues in the Department draw on exactly the same discourses to ignore it. As Bhaskar (1979) points out, however, structures and mechanisms at the level of the Real are only ever tendential. This means that we need to look for other mechanisms at play in the case of Entomology to account for emergence.

11.3.2.3 Alternative theoretical positions

The case of Psychology shows us how the adoption of alternative discursively constructed theoretical positions by key agents can contribute to the emergence of service-learning. The *community psychology* discourse drawn on in opposition to more traditional constructions of appropriate psychological practice was critical to the emergence of service-learning.

To some extent, this was also the case in Environmental Science where academics drew on a Systems Approach that required contributions from a range of perspectives in order to address environmental challenges. In Entomology too, Tim drew on what might be termed an 'alternative' theoretical position by including a course on Cultural Entomology rather than more traditional understandings of the subject involving the physiology or the classification of insects.

In the domain of culture, therefore, the availability of alternative theoretical positions for agents to draw on would appear to be enabling of the emergence of service-learning.

11.3.3 The domain of Agency

I have alluded to the personal emergent powers and properties (PEPS) of agents on many occasions in this Chapter. In this section, I will return to Archer's (2000:7) notions of 'concerns' and 'projects' and most especially to her idea that 'individuals develop and define their ultimate concerns: those internal goods that they care about most'. Projects are then identified, rightly or wrongly, which will further those concerns. In all four cases, it is possible to see how agents are driven by concerns. Riona, for example, is a fierce proponent of community-based psychology and draws on the injustices of apartheid to justify her concern. Mona's concern is for the environment and her projects focus on providing workable solutions to environmental challenges. We can surmise that the Philosophy students' concerns lie in a desire to help young people they can see are much less fortunate than themselves. Tim is concerned with teaching – an observation evidenced by his engagement with a formal qualification in teaching in higher education. The concerns of others are more inward looking, however. Peter is concerned with the pursuit of his discipline and this allows him to justify its inward facing nature even though in other areas of his life he could be identified as a social activist.

While one can identify the structures and mechanisms on which agents draw to exercise their personal emergent powers and properties, there is to a large extent, previous conditioning in the form of concerns embedded almost as an 'identity'. The emergence of service-learning can therefore be seen to be influenced by considerations such as who gets appointed to which position at which time – an observation evidenced by the fact that, if Riona had not been appointed as HoD and full professor, service-learning might never have emerged in curricula in the Department of Psychology at Rhodes University.

11.4 Implications

Perhaps the most significant finding that this study can offer is that not all disciplinary knowledge structures contribute to the emergence of service-learning. This is important given the status accorded to this form of learning in the national discourse. As I indicated in Chapter One of this thesis, service-learning is often cited in South Africa as a means of bridging the gap between the elitism of the academy and the challenges of South African

society. My study would suggest that the potential of service-learning to function in this way is very much influenced by the discipline. The more outward facing a discipline, the more likely that service-learning will be infused in the curriculum. The more inward facing the discipline, the less likely it is that infusion will be possible. My observation in this respect at the end of a study that uses a rigorous framework to analyse data accords with the more informal observation made at the outset of my study – i.e. that instances of service-learning appeared to cluster in some disciplinary areas and were not spread across all disciplines.

Yet another finding with implications for the claims made for service-learning in South Africa is that instances of infusion at an institution such as Rhodes University are more likely to occur higher up the curriculum structure and most particularly at postgraduate level. Where service-learning is infused in undergraduate curricula (as, for example, in Environmental Science) then it is only the use of creative forms of assessment that makes this possible. In Environmental Science, students complete a year-long research project which requires them to work in teams to provide workable solutions to environmental challenges identified in conjunction with local communities. The length of the project and the fact that it is written up in the form of a report means that the Department is able to move away from the more traditional tests and assignments of the typical undergraduate curriculum. The development of more innovative forms of assessment (along with more innovative forms of teaching) may require support. In the case of Environmental Science it is significant that several members of the Department have completed formal qualifications in teaching in higher education, sometimes with distinction. The existence of centres such as Rhodes University's Centre for Higher Education Research, Teaching and Learning (CHERTL) could therefore be important in contributing to emergence.

Of importance is the observation that any attempt to infuse service-learning will be conditioned by existing structures and cultural mechanisms at institutional, Departmental and disciplinary levels. Agents exercise their personal emergent powers and properties (PEPs) to challenge or maintain the conditions in which they find themselves. When PEPs are derived from seniority in the academic hierarchy, then it is more likelihood that an individual will be able to effect change. Where there is no seniority this becomes less likely.

In another twist of conditioning, the more senior an individual is, the more likely they are to be conditioned by disciplinary culture which is related to the knowledge structure of a discipline or field. If the disciplinary knowledge structure and its associated culture is not supportive of the emergence of service-learning, then the power related to seniority is needed to be able to work in a fashion which is contradictory to prevailing conditions. This was the case with Tim who was clearly an 'outlier' in his Department but was able to draw on his

PEPs to effect emergence. Given the differences in academic contexts, it is quite likely, however, that many of those whose concerns lead them to taking up service-learning as a project will not have been so conditioned by disciplinary structures and culture simply because they have not had years of experience within the discipline. Such people are more likely to hold more junior positions and thus will not be able to draw on the academic hierarchy as a structure to contribute to the emergence of service-learning.

If this is the case, then the existence of specialists in service-learning in a teaching and learning centre or another centre related to community engagement could make a difference especially if those individuals were perceived by academic staff as being senior in rank.

11.5 Further research

This study focused on conditions enabling and constraining the emergence of service-learning at Rhodes University. Further studies could elaborate by providing insights into the epistemic conditioning using Maton's (2011) concepts of semantic gravity and semantic density. These tools would provide an extension to Bernstein's tools for analysing external and internal relations of recontextualized knowledge (Shay, 2012:6).

In addition, my study focused on a case within a small cluster of research-intensive universities, an informal category in the South African higher education system. As I noted in Chapter Four of this thesis, it was never my intention to generalise from the study but, even with this proviso in mind, the insights the study has provided are limited by context. It would be interesting to see how the structural and cultural conditioning at, say, a university of technology or a university aiming to contribute to rural development differed to that in place at Rhodes University. The potential of my study to inform work with service-learning would therefore be enhanced by other work in other South African contexts.

My study points to resistance on the part of students to the infusion of service-learning because of the kind of learning and activity it requires of them. Service-learning can be seen to draw together the vertical discourse of the university and the horizontal discourse of the world outside. It would therefore be really useful for further studies to include the voices of both the students and the community partners whose voices were purposefully not sought for this study.

11.6 Conclusion

This study has acknowledged the global, national and local pressure for ‘universities to bridge the gap between higher education and society’ (Waghid, 2002: 457). One solution to bridging this gap has involved a shift from ‘disciplinary’ research to ‘problem-solving’ or applied research (Muller, 2000). This backdrop helped frame the assumption that service-learning would be an ideal pedagogical tool in post-apartheid South Africa.

The meta-theoretical framework chosen for this study assisted me to explore conditions enabling and constraining factors in the emergence of service-learning in contemporary curricula. The study suggests that, at the very least, caution needs to be exercised in relation to the claims made for service-learning to function as a means of allowing universities to move closer to the contexts in which they find themselves.

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Appendix I



RHODES UNIVERSITY

Grahamstown • 6140 • South Africa

Dear _____ (insert HoD's full name)

In their book "Where's the Learning in Service Learning?" Janet Eyler and Dwight E. Giles, Jr. define service learning as

a form of experiential education where learning occurs through a cycle of action and reflection as students work with others through a process of applying what they are learning to community problems and, at the same time, reflecting upon their experience as they seek to achieve real objectives for the community and deeper understanding and skills for themselves.

Service-Learning (SL) is an emerging field at Rhodes University which seeks to provide students with a credit-bearing opportunity to engage with local communities as part of their course requirements. In our efforts to provide our students with a well-rounded education, we consider community engagement (CE) as an essential component of their development. Service-learning takes voluntary community engagement to another level, and we would like to find ways to facilitate this in all departments.

Rhodes University will be holding a Service-Learning Week from Tuesday 24 March to Friday 27 March 2009. Presentations and discussions will take place from 17h00-18h30. All departments are invited to send a representative to these important events.

In order to better structure the presentations to suit those who will attend, please complete the attached brief questionnaire and return to Ms Mandy Hlengwa by Monday, 16 February 2009. A full programme will be sent to you early in March.

If you have any questions or comments about Service-Learning Week, please contact me or the Service-Learning coordinator, Mandy Hlengwa (a.hlengwa@ru.ac.za) in CHERTL.

Sincerely,

Dr Sizwe Mabizela

Deputy Vice- Chancellor: Academic and Student Affairs

Questionnaire

Department: _____

1. Does your department have a Service- Learning Component? Yes / No

If **Yes:**

- At which level (year of study)?

- How long has it been in operation?

If **No:**

- What would encourage your department to introduce SL?

2. Does your department have a Community Engagement Project/activity? Yes/No

If **Yes:**

- What percentage of your department's students participate in the CE activity?

If **No:**

- What would encourage your department to introduce a CE activity/project?

Appendix II

Permission to conduct research

Project title: An exploration of systemic enabling and constraining factors on the infusion of service-learning into curricula at Rhodes University.

Researcher: Amanda Hlengwa, Centre for Higher Education Research, Teaching and Learning.

I, _____, Head of the Department of _____, give permission for Ms Amanda Hlengwa to include the _____ Department as a case in her PhD research on the infusion of service-learning into curricula at Rhodes University.

Ms Hlengwa may contact academic staff in the department and invite them to participate in one-on-one interviews which will focus on the infusion of service-learning in the _____ curriculum and the factors that impact on it.

Course outlines and other documentation relevant to the curriculum will also be made available to her and she may approach academic or administrative staff in order to obtain these documents.

This material will be used in her PhD thesis and may be used in subsequent publications

It is not anticipated that interviewees will be asked to disclose sensitive or confidential information. However, Ms Hlengwa will discuss with interviewees any concerns they may have about the use to which the material of the interviews will be put, and, should concerns about confidentiality be expressed, she will address them in a manner that will be mutually agreed with the respective interviewees.

Participants will also be invited to review relevant sections of the report to check whether they are factually accurate and fairly represent interviewee's experience or perspectives. Should changes be necessary, they will be made to the satisfaction of the individual concerned.

Signed:

Date:

Consent for use of data for research purposes

‘An exploration of systemic enabling and constraining factors on the infusion of service-learning into curricula at Rhodes University.’

Thank you for verbally agreeing to participate in this research project aimed at developing a framework to inform decisions made regarding the infusion of service-learning in curricula.

The purpose of this document is to obtain your written consent for being involved in my research. In order to achieve the aims of the research I need to theorize in a way that will explain why service-learning is infused at particular levels within a particular discipline.

In order to do that I would like permission from you to use curriculum documents related to the service-learning course you may have. This may include questionnaires, evaluation data from the students related to the course, and one-on-one interviews conducted by me. In addition, I may want to use extracts from assignments, completed portfolios, e-mail correspondence and in some cases journal entries.

In the research outputs (thesis, academic papers etc.) I will not be using any of the participants’ names and I will endeavour to protect your identities. There may be occasions where in the interests of the research I will allude to departments or faculties. If I think someone may be able to identify a participant and that such identification could in any way have negative consequences for the individual, I will send them the relevant sections of the report and check with them that it is acceptable. If the participant feels that it is unacceptable, I undertake to make changes to the satisfaction of the individual concerned.

Attestation of agreement and confidentiality

I, Amanda Hlengwa (the researcher) do hereby swear that all information obtained as a result of this research will be treated in such a way that the confidentiality of the provider of that information will be maintained.

Signed: _____ Date: _____

I,(research participant) do hereby acknowledge that I have been informed of the nature, method and purpose of this research project, and have given my informed consent to participating in the project provided that my confidentiality is observed. I give permission for data with my identity concealed, to be used for the purposes of this research project.

Signed: _____ Date: _____

Appendix III

Course code	Course name
ANTH	Anthropology
BOT	Botany
CEL	Cell Biology
CHEM	Chemistry
COM SCI	Computer Science
EAR	Earth Science
ECOS	Economics
ENG	English
ENT	Entomology
GEOG	Geography
GOG	Geology
HIST	History
MAT	Mathematics
IND SOC	Industrial Sociology
ORG PSYCH	Organizational Psychology
PHI	Philosophy
POL	Politics
PSYCH	Psychology
SOC	Sociology
ZOO	Zoology

Appendix IV



RHODES UNIVERSITY

COURSE TITLE: ENV 301: ENVIRONMENTAL MONITORING AND MONITORING SYSTEMS (2011)

INTRODUCTION

1.1 Purpose of course

The course builds on the foundations laid in ENV 2 in terms of systems thinking, interdisciplinarity and the scientific analysis of environmental problems. The focus is on the design and implementation of environmental monitoring systems appropriate at different spatial and temporal scales integrating across the biological, social and economic components of an environmental system. Examples will include industrial, terrestrial and aquatic systems. A key component deals with collection and analysis of environmental data, which is core of any environmental monitoring system. Field visits may take place over a limited number of weekends. The practical application of the course will be incorporated into the year long mini-research project.

1.2 Credit Value

The course has a credit value of 15. It is assumed that the 'average' learner would need approximately 10 hours to complete one credit's worth of learning. The 10 hours would include lecture attendance, self study and work on assignments.

Assumptions of Prior Learning (or Learning assumed to be in place)

The skills covered in Environmental Science 201 and 202 are particularly relevant, especially those relating to systems analysis, team work, and interdisciplinarity.

OUTCOMES

Critical Cross-Field Outcomes

Learners will be able to:

identify and solve problems

work in a team

organize and manage themselves

collect, analyse and evaluate information

communicate effectively

use science and technology

recognize problem solving contexts

reflect on and explore effective learning strategies

Specific Intended Outcomes

By the end of the course learners should be able to demonstrate:

An understanding of the practical application of project management principles

A critical understanding of monitoring principles and approaches

An understanding of the practical application of environmental monitoring approaches

An ability to differentiate between various data analyses and presentation techniques

An ability to apply data analyses and presentation techniques to their academic work

A questioning approach that objectively appraises current dogma and popularist projections

An ability to conduct self study and synthesis of relevant information

More specific and complementary outcomes are provided for each theory component and the practical component.

TEACHING METHODS

Lecturers will provide specific details for each theory component. The teaching and learning methods will consist of formal lectures, cooperative learning, problem-based learning and

practicals. Where possible, guest lecturers will be invited to give individual lecture contributions with case studies and real-life experiences. Guest lectures will be scheduled at times convenient to the guest/s. Learners are expected to interact with each other using the discussion forum in the RUconnected learning management system.

An attendance register will be circulated at each lecture. Whilst lectures are not compulsory, students are strongly encouraged to attend lectures to obtain maximum benefits from the course, and meet the course outcomes. Records of attendance will be consulted in situations where students are borderline cases or in instances where appeals and value judgements need to be made. Students should also be familiar with the Departmental policy on leave of absence (Appendix 1) and the requirements for DP (Appendix 2).

COURSE CONTENT AND TEACHING SCHEDULE

The theory components that will be covered in this course are shown in Table 1. Lecturers will provide detailed contents for each component.

The practical project component is year-long. A detailed description of the project and the number and nature of the different deliverables will be given in a separate document. Planning activities will commence during the first week of the first term.

RESOURCES

Lecturers will provide notes and a list of key readings for their theory components. In some instances learning resources will be posted on Ruconnected.

Table 1. Environmental Science 301 Course content and teaching schedule

Week	Date	Day	Lect. #	Component	Lecture topic	Lecturer	
1	14-Feb	Mon	1	Project Planning	Course outline	JG	
	15-Feb	Tue	2		Year long project: ToR and management	JG	
	16-Feb	Wed	3		CU		
	17-Feb	Thur	4		CU		
	18-Feb	Fri	5		CU		
2	21-Feb	Mon	6		CU		
	22-Feb	Tue	7		CU		
	23-Feb	Wed	8		CU		
	24-Feb	Thur	9		CU		
	25-Feb	Fri	10		CU		
3	28-Feb	Mon	11		CU		
	01-Mar	Tue	12		CU		
	02-Mar	Wed	13		CU		
	03-Mar	Thur	14		CU		
4	04-Mar	Fri	15		CU		
	07-Mar	Mon	16		CU		
	08-Mar	Tue	17		CU		
	09-Mar	Wed	18	Environmental monitoring systems	Introduction and need for monitoring systems	JG	
5	10-Mar	Thur	19	Conceptual basis of monitoring	Principles of monitoring	JG	
	11-Mar	Fri	20		Principles of monitoring	JG	
	14-Mar	Mon	21		Monitoring for adaptive management	JG	
	15-Mar	Tue	22		Monitoring for adaptive management	JG	
	16-Mar	Wed	23		Accuracy, precision and resolution in repeated measures	JG	
	17-Mar	Thur	24		Scale in environmental monitoring (global, regional and local)	JG	
	18-Mar	Fri	25		Scale in environmental monitoring (global, regional and local)	JG	
	21-Mar	Mon	VAC		Factors to consider in setting up a monitoring system	VAC	
6	22-Mar	Tue	26	Factors to consider in setting up a monitoring system	JG		
	23-Mar	Wed	27	Criteria and indicators	What are criteria and indicators	JG	
	24-Mar	Thur	28		Attributes of a good indicator	JG	
	25-Mar	Fri	29		Selecting or designing indicators (social, ecological, economic, composite and empirical)	JG	
7	28-Mar	Mon	30	Examples of monitoring systems	LTER/SAEON/GEO BON	JG	
	29-Mar	Tue	31		Community-based monitoring systems	JG	
	30-Mar	Wed	32	Collecting monitoring data	Sampling approaches: qualitative and quantitative	JG	
	31-Mar	Thur	33		Frequency and resolution of collection	JG	
	01-Apr	Fri	34		Interacting with human subjects - ethics	JG	
02 Apr - 10 Apr			VAC	VAC	VAC	VAC	
8	11-Apr	Mon	35	Collecting monitoring data	Designing interview schedules	GS	
	12-Apr	Tue	36		Designing interview schedules	GS	
	13-Apr	Wed	37		Guest lecture	TBA	
	14-Apr	Thur	38		Storing data and principles of database design	TBA	
	15-Apr	Fri	39		Practical experience	Students to design monitoring system in response to a specific ToR	FE
9	18-Apr	Mon	40	Practical experience	Students to design monitoring system in response to a specific ToR	FE	
	19-Apr	Tue	41	Practical experience	Students to design monitoring system in response to a specific ToR	FE	
	20-Apr	Wed	42	Practical experience	Verbal presentations and marking of systems	FE	
	21-Apr	Thur	43	Practical experience	Verbal presentations and marking of systems	FE	
	22-Apr	Fri	VAC			VAC	
	25-Apr	Mon	VAC			VAC	
11	26-Apr	Tue	44	Interpreting monitoring data	Introduction to data analysis and interpretation	JG	
	27-Apr	Wed	VAC			VAC	
	28-Apr	Thur	45		Basic descriptors: means, modes, medians, Box and Whisker plots, decimal rounding	JG	
	29-Apr	Fri	46		Basic descriptors: means, modes, medians, Box and Whisker plots, decimal rounding	JG	
	02-May	Mon	VAC			VAC	
	03-May	Tue	47		Understanding variation in data: confidence limits and significance	JG	
	04-May	Wed	48		Understanding variation in data: confidence limits and significance	JG	
	05-May	Thur	49		Exploring differences in means: t-tests	JG	
	06-May	Fri	50		Exploring differences in means: t-tests	JG	
	12	09-May	Mon		51	Exploring differences in means: analysis of variance	JG
		10-May	Tue		52	Exploring differences in means: analysis of variance	JG
		11-May	Wed		53	Testing observed relationships: correlation and regression	JG
		12-May	Thur		54	Testing observed relationships: correlation and regression	JG
13-May		Fri	55	Testing observed relationships: correlation and regression	JG		
13	16-May	Mon	56	Exploring differences in frequency - chi-squared test	JG		
	17-May	Tue	57	Mis-interpreting data	JG		
	18-May	Wed	58	Qualitative data analysis	JG		
	19-May	Thur	59	Extrapolation and prediction from env data	Spreadsheet models	JG	
14	20-May	Fri	60	Simulation models	JG		
	23-May	Mon	61	Communication and uptake of monitoring info	Research implementation gap	CS	
	24-May	Tue	62		Research implementation gap	CS	
	25-May	Wed	63		Research implementation gap	CS	
	26-May	Thur	64		Presenting monitoring data	CS	
	27-May	Fri	65	End of course evaluation	Course evaluation	JG	

STUDENT ASSESSMENT

Individual and group assignments will be used for the summative assessment of learning outcomes highlighted in section 2. Assignments will consist of one essay (Appendix 3), project literature review, verbal presentation of the research proposal, written report of research proposal, contribution to online discussions and research project progress report. Only the essay and contributions to the discussion forum will be individual assignments. Consult the general writing guidelines (Appendix 4) and the marking criteria for the essay (Appendix 5) and the interim deliverables for the year-long practical (see separate document with specific details). Students will be required to assess their peers for group assignments (Appendix 6). Instructions for contributions to the online discussion forum are outlined below.

The online discussion topic will be uploaded on RUconnected. All students will be required to contribute to the discussion topic. Students will be required to support their arguments using at least four references from **scientific journals**.

Students are reminded to avoid any form of plagiarism in assignments. A mark of **zero** is usually assigned for plagiarised submissions, without an opportunity to rewrite that assignment. Please ensure you are familiar with the University policy and definitions regarding plagiarism, and the departmental penalties associated with plagiarism (Appendix 7).

The due dates for the assignments are provided below (Tables 2 and 3). Please note that without **ANY EXCEPTIONS** a penalty of **10% per day**, or part thereof, will be levied against late submission of assignments **AND** peer evaluation forms. Submission of assignments by E-mail is not allowed; hard copies of the assignments should be submitted in the appropriate box. **ALL** peer evaluation forms should be submitted electronically using RUConnected.

Table 2. Due dates for Environmental Science 301 assignments and allocation of marks

Assignment	Mark weight (%)	Due date	Time
Contribution to online discussion forum	3	28 Feb	15:00
Essay	15	11 Mar	15:00
Project literature review	8	25 Mar	15:00
Verbal presentation on project proposal	4	15 Apr	14:00
Written report on field trip	4	19 Apr	15:00

Deliver written project proposal		21 Apr	15:00
Peer assessment of written project proposal: Submit	3	29 Apr	15:00
Written report on project proposal	12	06 May	15:00
Project progress report 1	5	27 May	15:00
Class participation	2		
Env 301 Paper 1	22	June	N/A
Env 301 Paper 2	22	June	N/A

Table 3. Scheduling and deliverables for the 3rd year Environmental Science year-long project

Semester 1			Semester 2		
Date	Activity	Mark weight	Date	Activity	Mark weight
Feb 18	Receive project descriptions		Jul 29	Check in with supervisors wrt progress: data analysis	
Feb 25	Finalise projects and groups:		Aug 05	Data analysis	
Mar 04	Prac on project proposal: Meet James		Aug 12	Deliver progress report 2	3%
Mar 11	Develop project proposal and literature review		Aug 19	Check in with supervisors wrt progress	
Mar 18	Practical on interview schedule design and ethics		Aug 26	Preparation of report draft	
Mar 25	Submit literature review, conduct pilot study	8%	Sep 01	(THURSDAY) Deliver written project report	
Apr 15	Deliver verbal project proposal to Department	4%	Sep 02	Peer assessment of report draft: Submit	3%
Apr 21	(THURSDAY) Deliver written project proposal		Sep 30	Deliver verbal presentation	5%

Apr 29	Peer assessment of written project proposal: Submit	3%	Oct 07	Prepare final report	
May 06	Submit final Project proposal	12%	Oct 14	Deliver final report	17%
May 27	Deliver written progress report 1	5%	Oct 21	Presentations to decision-makers	4%
Total weight for semester 1		32%*	Total weight for semester 2		32%*

* The remaining 68% in each semester comes from the coursework component of the course

EVALUATION

The course will be evaluated using either questionnaires or small group instructional diagnosis (SGID).

Trouble shooting

In the event of individual or group problems, please contact the relevant lecturer dealing with that part of the course with which the problems are associated. For more general issues, or unsatisfactory resolution of the problem, please contact the course coordinator, James Gambiza (Office 104 Bangor House; tel. 6037010; email: j.gambiza@ru.ac.za).

Appendix 1: Leave of absence policy in the Department of Environmental Science

To achieve its core learning outcomes, the Department aims to promote ‘active learning’ by students through discussion, debate and practical activities. To achieve this, the Department stimulates lecture attendance by offering interesting and relevant lectures and practicals, and showing passion for teaching and for Environmental Science as a subject. It also expects students to respond by participating in all lectures and practicals.

The Department understands, however, that this might not always be possible, and has therefore formulated this leave of absence policy.

Environmental Science students must attend:

100% of all practical activities

100% of student presentations

Students not complying with this will not be allowed to write end of semester examinations, i.e. will be refused 'Duly Performed' certificates, unless complying with this leave of absence policy.

Students are expected to attend all lectures. Lecture attendance data may be used in the allocation of a mark for student participation if part of an agreed semester mark, and to assist staff decisions on 'borderline' cases.

Students may be granted leave of absence on the basis of:

Illness;

Bereavement;

Participation in an official match of a recognised competitive sporting code as a member of a national, provincial or Rhodes 1st team.

A student requesting leave of absence should submit:

An official leave of absence form. This must first be signed by the lecturer concerned (i.e. the one whose part of the course you will be missing/have missed), and then the course-coordinator);

Proof that the absence was justified:

In the case of illness: a medical certificate;

In the case of bereavement: a letter from a responsible individual (pastor or parent);

In the case of sport: a letter from a Rhodes sport administrator *at least one week in advance of the match*;

Students who have been granted leave of absence must nevertheless submit all assignments, including those set, or due, during the period when they were granted leave of absence. The submission dates for such assignments will be extended by the number of days absent. The onus is also on the student to familiarise him/herself with any practical techniques that had been displayed or taught during the period of their absence.

The Department has the right to verify the authenticity of leave of absence requests, but undertakes not to infringe on students' right to privacy while doing so.

Appendix 2: Requirements for DP

The following DP requirements are applied within the Department of Environmental Science. It is the responsibility of each student to be familiar with them, and make every effort to comply.

To attend **ALL practicals** – see **Leave of Absence Policy**.

To hand in all assignments for marking on the due date. Any assignments handed in late without prior permission from the lecturer concerned will be penalised by a deduction of 10% per day or part therefore.

A **sub-minimum of at least 35% in the year mark**. Students failing to obtain 35% for their year mark will not be permitted to write exams.

A **sub-minimum of 35% will also be applied in each exam**. Thus, a student failing any exam with less than 35% will be deemed to have failed the course irrespective of their final aggregated mark for that semester course (i.e. year mark, plus exam 1 mark, plus exam 2 mark).

Whilst lectures are not compulsory, students are expected to attend lectures so as to meet all the outcomes of the course. An attendance register will be circulated at each lecture. This will be consulted when value judgments are to be made on borderline cases.

Appendix 3: Assignments for ENV 301 course

Essay

Write an essay not exceeding **3 000** words, excluding references, on **ONE** of the three topics provided below. Please comply with the standing guidelines for essays in the Department of Environmental Science, with special attention to those relating to the number, format and use of references (Appendix 4).

Challenges in the monitoring of ecological systems

or

Key issues in data analysis and interpretation

or

A horizon scan of environmental challenges

Appendix 4: Guidelines for written work and reviews of scientific papers

General guides in written work

Provide a clear statement of the purpose and objective of the report or essay.

A clearly structured and logical flow and argument must be developed.

Papers should begin with a clear introduction, followed by a discussion (which should, ideally, be further divided into sections), conclusion and reference list. Research reports have a similar logical structure such as: introduction, literature review, methods, results, discussion, conclusion and reference list.

Justify and substantiate statements and views/theories by providing original data or by referring to other sources.

Phrases such as “*it has been shown*”, or “*it has been stated*”, or “*it has been argued*” must be followed by a reference, i.e. who has shown it, stated it, or argued it.

Avoid excessive use of the phrase “In order to...”. In most cases the words “in order” are superfluous.

If supporting a particular viewpoint, substantiated with reference to other work, make sure there is evidence that one is aware of any counter viewpoints and that they are acknowledged.

All ideas and words borrowed from other authors/papers must be acknowledged in the text and in the reference list at the end of the paper. You are permitted to use material from other sources and even to use direct quotes, but the original source must **always** be acknowledged.

Plagiarism, the theft of one author’s work by another, is considered unethical and unacceptable. Rhodes students caught plagiarising will be given a zero mark. Students who are consistently caught plagiarising risk losing their DP (ensure you are familiar with University policy and definition).

The reference list must provide full details of the sources that you cited in the paper, so that the reader can locate these sources for themselves if needs be. Refer to Environmental Science 2 guides on how to cite and reference work. Refresh your memory, particularly re the section on Common Mistakes in Referencing.

At third year level, Environmental Science essays must draw upon and cite **at least** 15 references, of which **at least** 70% must be from journal articles. The balance (30%) can be between books and Internet web sources. The number of references for practical reports and reviews is less, but the same ratio of journals to other sources is applied.

Look at the guides for review of scientific papers, which can also act as a useful checklist for preparing and editing your own work.

Formatting

All documents must have page numbers. Do not number the title page/front cover. Page one corresponds to the page with the Introduction. Any pages occurring before the Introduction (e.g. table of Contents, Executive Summary), except the Title page, should be numbered with small Roman numerals.

A major title or heading should not end with punctuation. For example there should be no full stop after a heading or title.

When using a number in text (e.g. 6 years; 15 people), it should be written out in full if ten or less, but left as a numeric if greater than ten (e.g. six years; 15 people).

Always leave a space between a numeric and its accompanying units. For example, 27 m, as opposed to 27m; 16 kg instead of 16kg.

Do not use footnotes. If the statement is worth saying, and needed for clarity, then put it within the text directly, not a footnote. If it is not central to your argument or point, exclude it.

Tables should not run over from one page to the next except where it is a very long table. Therefore, position the Table within the page so that it does not flow over to the next page.

The headings for Tables should be above the Table.

The captions for Figures should be below the Figures.

Ensure all parts of the document have consistent formatting. In terms of striving for consistency, it is not a case of one format is correct and another incorrect, it is simply that whichever format you use must be *consistent throughout the document*. Common inconsistencies include:

Left and right hand justification of the text throughout most of the document, but one or two paragraphs (usually merged in from some other document) are only left justified.

Different formatting of headings even though in the same level of heading hierarchy (for example underlined in some places, not others; bold or italic in some places, not others, etc.).

Changes in spacing before and after headings, or between paragraphs. For example, in one section there is only one line between a heading and the subsequent text, in another section there are two lines.

Inconsistent application of capital letters. For example, Rhodes University on one page, and then Rhodes university on another.

Inconsistent use of hyphens for the same word, e.g. on one page the word is hyphenated (over-exploited), and on the next page it is not (overexploited).

Inconsistent punctuation or styles between references in the reference list.

On one page a full stop after an abbreviation (e.g. Fig. 2) and on other pages not (Fig 2).

General marking criteria for written reports

The following criteria are taken into account in marking general written reports in the Department of Environmental Science.

Understanding of the question/problem	Is the question/problem directly addressed, is the answer to the point?
Presentation of the facts	Are all the relevant facts provided? Are key facts, elements or views absent?
Structure and flow	Does the content have a logical, well-defined structure, broken up into component parts that lead on from one to the next?
Logic	Are the arguments clear and logical? Are the conclusions valid in relation to the facts presented and arguments posed? Are arguments, view points and conclusions substantiated?
Critical thinking	Have contrary views to the conventional dogma been considered and appraised, have assumptions been considered, is there evidence of the student trying to critique ideas based on their own views and thinking? Have they balanced and considered contradictory views on the issue and then come to a defensible conclusion of why one is better than the other, or that some new position is required?
Use of references	Has a wide range of references been consulted, are most of them reasonably recent (< 5 years), is the ratio of journal to non-journal sources satisfactory; is the reference list without errors?
Editorial detail	Is it clear that the document has been proof-read, with minimal spelling, typo, syntax errors and layout inconsistencies?
Overall effort	Does the extent and detail of the work demonstrate that significant effort has

Guides on review of scientific papers

In appraising scientific papers there are a number of attributes the reader can consider. These have been listed below. Because scientific papers are written in different formats (e.g. journal articles reporting on empirical studies, synthesis papers providing a meta-analysis of previous work, review papers in journals, chapters in books, theoretical reviews, and more), not all evaluation criteria are applicable to every paper. For example, chapters in books rarely follow the same format as empirical papers along the style of Introduction, Study Area, Methods, Results, and Discussion. Things to consider (which is also a useful checklist for your own work) are:

Writing style

Language and sentence structure are easy to read

It is error free

Uses appropriate terminology, but is not a litany of jargon

All acronyms are defined in full at first presentation

Structure

The overall structure and flow of thinking is logical and clear

The objectives and justification for the paper are clear

Hypotheses are introduced and clearly stated

The paper is not full of generalisations, i.e. arguments and points are supported by data within the paper or citations of other relevant work

If a review paper, it considers both/more sides of current thinking before drawing conclusion, i.e. unbiased

Relevant and up-to-date

The paper is dealing with current, topical issues

Most, but not necessarily all, of the cited references are recent (< 5 years old)

Study Area

Details of the area are provided so the reader can judge if the site was atypical in some regard

Methods

The methods are appropriate to address the objectives or key questions

Sample size seems valid (in the results, check the magnitude of the standard deviation relative to the mean; if no standard deviation given, why not?)

The most recent methods are used, not out-dated or discredited methods

The assumptions and/or short-comings of the methods are mentioned (if there are any)

The methods are clear, so that the reader could repeat the study exactly if they so wished

Units are clear and all symbols in equations are defined

Analyses/Results

The data are subjected to appropriate statistical analyses (did not invalidate any of the required assumptions for specific tests)

The authors do not read or discuss non-significant results or outliers without justification

If outliers are evident, they have not been given undue importance, but nor have they been ignored

Units are clear and consistent

Confidence limits are provided for the means, if means have been reported

Discussion

The conclusions or arguments are clear

They are substantiated and logical relative to the data and arguments presented

The authors make clear comparisons between their results and other work in the same field. Similarities and differences are considered. Possible reasons for differences are offered, or hypothesised. Comparisons are not obviously biased

Comparisons are valid, i.e. across similar vegetation types, socio-economic profiles, climates, etc.

The implications of the results for policy, management, users, further research are made clear, but are not blown out of proportion (for example extrapolating from one site or one model, to challenge continental or global understanding of the issue)

Tables

Do not duplicate information in the figures

Column/row totals add up

Units are provided

The heading accurately reflects the contents of the table

There are not too many tables

Would more tables have been a useful way of summarising the findings

Individual tables are not too large and crammed with so much data it is arduous to read

The text provides a summary of the main points evident from the table

Figures

They do not duplicate information in the tables

They are clear and easily interpreted

Units are provided

The heading accurately reflects the contents of the figure

There are not too many figures

Would more figures have been a useful way of summarising the findings

Individual figures are not too large and crammed with so much information that it is arduous to read

The text provides a summary of the main points evident from the figure

References

All the references cited in the text appear in the reference list and vice versa

All the references are in the correct order (usually alphabetical)

The punctuation format is consistent between the references

Details of each reference are provided, i.e. no missing page numbers, or volumes, or dates, publisher, etc.

Student: Essay Marking Schedule Mark: .../100

Criteria	Excellent (9-10)	Very Good (7-8)	Satisfactory (5-6)	Poor (3-4)	Very Poor (0-2)	Weight
Format	Conforms to writing guidelines of the Department; Good use of sub-headings to guide flow	Minor deviations from Departmental guidelines; use of headings & sub-headings	Some errors in format; limited use of headings sub-headings	Frequent errors in format; occasional use of headings sub-headings	No adherence to Departmental guidelines or use of headings	1.0
Introduction	Logically constructed, positions accurately without unnecessary information; excellent insight into topic	Logical and gives good idea of the background to the topic and demonstrates insight	Reasonably logical description of thinking on the topic	Limited logic, limited evidence of current clear purpose for the essay	Poor logic, limited evidence of clear purpose for the essay	1.0
Presentation & style	Polished, imaginative approach, fluent writing, accurate grammar & spelling; no repetition	Carefully presented, fluent writing & accurate grammar & spelling	Coherent & organised, mainly fluent, spelling & grammatical errors	Some attempt to organise, sometimes always fluent, contains spelling & grammatical errors	Disorganised, frequent spelling & grammatical errors; significant repetition	1.0
Originality	Many creative ideas and / or examples; explores a variety of perspectives	Uses imagination to go beyond standard requirements; uses original ideas	Some evidence of imaginative thought; some original examples	Shows little originality is marginal	No evidence of creativity or use of original examples	1.5
Content & Knowledge	Comprehensive knowledge; in depth specialisation	Reasonable knowledge of chosen topic	Provides factual conceptual base & terminology	Limited knowledge of topic & some appropriate terminology	Lacks evidence of knowledge relevant to topic and / or misuses terminology	1.5
Use of Literature & Referencing	Has developed & based on a wide range of thorough analysis and citations are accurate and formatted	Good integration of resources; used to support own ideas on the topic; very few citations	Clear evidence of application of relevant to the subject; uses some resources; limitation of understanding;	Literature is presented uncritically & in a purely descriptive way; indicates limitation of understanding;	Little evidence of use of literature or irrelevant information; frequent errors	1.5
Critical Reasoning	Consistently demonstrates analysis; well integrated into the text	Demonstrates critical analysis of the topic	Some critical analysis of the topic with reasonable integration	Some evidence of critical thought	No evidence of critical analysis	1.5
Conclusions	Analytical and clear, well grounded theory and shows development of concepts or ideas	Good development in summary of arguments on theory or literature	Evidence of findings and conclusions based on theory or literature	Limited evidence of findings and conclusions supported by theory or literature	Unsubstantiated conclusions with little foundation / no relevant conclusions	1.0

Appendix 6: Environmental Science: Group Assignment: Peer Review

Please complete a review for each member of your group. All ratings will be kept strictly confidential. No group member will see the rating sheets. They will be used only by the lecturer to assess the individual’s contribution to the overall group effort.

Student Name: **Student No.** **Group #:**

Course:

Assignment: **Date due:**

In the table below there are four criteria according to which each group member should be assessed. These criteria include attendance, reliability, academic contribution, quality of work, behaviour, and share of workload. Against each one of the criteria you are asked to give each student a rating out of five on the following basis:

Little or no input or contribution (behaviour = disruptive and uncooperative)

Some input but inadequate and below expectations (behaviour = uncooperative)

Adequate or average contribution at expected level (behaviour = co-operative)

Good, above average contribution (behaviour = co-operative and provided some direction)

Excellent contribution (behaviour = provided considerable direction and leadership)

Please use the following table to rate each member of your group against the four assessment criteria. Do not evaluate yourself.

Assessment Criteria	Student Name	Student Name	Student Name	Student Name	Student Name	Student Name
Attendance, punctuality and reliability (1-5)						
Academic contribution (1-5)						
Quality of work produced (1-5)						
Share of the workload (1-5)						
Total marks						

Some questions about group dynamics:

Did the group decide how to divide up responsibilities and tasks, and delegate tasks?

.....
.....

If yes, was the division of responsibilities fair and relatively equally divided?

.....
.....

If responsibilities were not equally shared account for why this occurred.

.....
.....
.....

APPENDIX 7 – Plagiarism policy

REQUIREMENT

All students are required to include a declaration on the front page of all written work submitted for marks to effect that they are aware (i) what plagiarism is, (ii) of the university and departmental plagiarism guides and policy, and (ii) that it is an offense to plagiarise. A template declaration is provided.

PROCESS IN TERMS OF DEALING WITH ALLEGED PLAGIARISM

A member of staff or Graduate Assistant detects alleged plagiarism in a student's work. If a Graduate Assistant, they immediately bring it to the attention of the lecturer for that module, or the course coordinator.

If deemed a Category A offence the lecturer concerned meets with the student, discusses the alleged plagiarism and reasons for it, and implements an appropriate penalty as per the General Guides. The name of the student and penalty are reported and recorded at the departmental teaching meeting.

If initially deemed to be a Category B or C offence, the member of staff notifies the HoD or his/her stand-in that plagiarism is suspected. They provide HoD with three copies of the work

containing the alleged plagiarism, along with notes (or annotations on the actual assignment script) regarding the nature and extent of the alleged plagiarism.

The member of staff also notifies the student of the allegation and that it has been referred to the HoD.

The HoD examines the allegations and calls for records of prior incidences from DES and other departments in which the student is registered.

The HoD convenes the Departmental Plagiarism Committee. The said committee cannot include the staff member who detected the plagiarism.

The Plagiarism Committee categorises the offence as unfounded, or Class A, Class B or Class C as per the University Plagiarism Policy.

If unfounded, the student is notified immediately and no penalty or further action is required.

If classified as a Class C offence it is referred to the Senate Standing Committee on Plagiarism.

If classified as an A or B level offence, the departmental Plagiarism Committee decides an appropriate penalty, using the guides. These are only guides to ensure some degree of consistency, and thus the final penalty imposed can be increased or decreased depending upon extenuating or mitigating circumstances for each individual case.

The HoD or his/her stand-in notifies the student of the decision of the departmental Plagiarism Committee, along with a notification that there is an appeal process (at departmental and Senate level) open to the student if s/he wishes to appeal the finding. If they accept the finding, but wish to argue for a lighter penalty, they may lodge mitigating circumstances to the HoD, either in writing or verbally within three working days of the decision being communicated to the student. The HoD will confer with at least one other member of the departmental Plagiarism Committee and decide whether to uphold the original penalty or amend it on the basis of the mitigating circumstances supplied by the student. The outcome is communicated in writing to the student.

The records of the offence and decisions are placed on the student's file in the department, with copies to the Dean of Faculty and Chairperson of the Senate Committee on Plagiarism. A plagiarism declaration should be submitted with ALL assignments. A sample template for plagiarism declaration is given overleaf.

PLAGIARISM DECLARATION

I have read and understood the university plagiarism policy, and consequently understand what plagiarism is, and appreciate that it is wrong and if detected may result in penalties.

I know that plagiarism means taking and using ideas, writings, words or inventions of another person as if they were my own. I know that plagiarism not only includes verbatim copying, but also the extensive use of another person's ideas without proper acknowledgement (which includes proper use of quotation marks). I know that plagiarism covers this sort of use of material found in text sources and from the Internet.

I acknowledge and understand that plagiarism is wrong.

I understand that my research must be accurately referenced. I have followed the rules and conventions on referencing, citation and use of quotations as set out in the departmental guide.

This assignment is my own work, or my group's own unique group assignment. I acknowledge that copying someone else's assignment, or part of it, is wrong, and that submitting identical work to others constitutes a form of plagiarism.

I have not allowed anyone to copy my work, or part of it, in this assignment with the intention of passing it off as their own work.

Signed: _____ Date: _____

General guidelines for the Department of Environmental Science regarding penalties to be imposed in substantiated instances of plagiarism

Note:

These are only a guide to ensure some degree of consistency, and the final penalty imposed can be increased or decreased depending upon extenuating or mitigating circumstances for each case.

Category C offences are automatically referred to the University Plagiarism Committee, chaired by the Vice-Chancellor.

Category A	Suggested penalty	Category B	Suggested penalty
Copying of text from another student:	Assignment is marked as normal. The assigned mark is	Copying of text from another student:	Assignment is marked as normal. The assigned mark is

* first offence, AND * extent of copying < 15%	reduced by 15%. Then it is divided by two and assigned to each participant. If the copier owns up s/he will get zero and the lender will get the assigned mark less 15%.	* first offence and copying of 15-30% of text from another student, OR * first repeat offence	reduced by 30%. Then it is divided by two and assigned to each participant. If the copier owns up s/he will get zero and the lender will get the assigned mark less 30%.
Direct lifting of one or more segments or blocks of text without quotation marks and/or due acknowledgement. First offence AND confined to < 15% of text	Mark as normal. Then deduct an absolute 50% from the mark.	Direct lifting of one or more segments or blocks of text without quotation marks and due acknowledgement. First repeat offence OR 15-30% of text	A mark of zero is assigned
Direct lifting of sentences or phrases scattered throughout other text, without using quotation marks and/or due acknowledgement. First offence AND confined to less than 15% of text	Mark as normal. Then deduct an absolute 40% from the mark.	Direct lifting of sentences or phrases scattered throughout other text, without using quotation marks or due acknowledgement. First repeat offence OR 15-30% of text.	A mark of zero is assigned
Paraphrasing /rewording of a block of text without due acknowledgement and essentially lifting the idea and flow of thought/logic/ text from the original source. First offence AND confined < 15% of assignment	Mark as normal. Then deduct an absolute 30% from the mark.	Paraphrasing /rewording of a block of text without due acknowledgement and essentially lifting the idea and flow of thought/logic/ text from the original source. First repeat offence OR 15-30% of assignment	A mark of zero is assigned
Negligent referencing, first offence	Mark as normal. Then deduct 15% from the	Negligent referencing, repeat offence	Rewrite the assignment within one

	mark.		week, which is then marked, and then a penalty of 25% deducted.
		Any of the above forms of plagiarism, third offence AND < 30% of text	Loss of DP
Category C – Any offence where the extent is > 30% of the assignment OR a fourth repeat of any of the Category A or B offences			

South African Research
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Interdisciplinary Science
in Land and Natural
Resource Use for
Sustainable Livelihoods



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Rhodes University

2011

PRACTICAL PROJECT 3RD YEAR'S:
A State of the Environment Report (SoER) for
Grahamstown

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RHODES UNIVERSITY

Department of Environmental Science
Third Year Environmental Science Practical Project: 2011
A State of the Environment Report (SoER) for Grahamstown

1. Introduction

Each year third year Environmental Science students undertake a year-long environmental science project. The project is group-based with each group consisting of up to six students. Ability to work as a team is one of the critical learning outcomes. The course facilitators will place students into groups. Groups will be balanced, for gender, major degree and socio-cultural backgrounds. We believe this will enrich your learning experiences.

This year, the project will focus on the state of the environment in Grahamstown. State of the environment reporting is a tool that is used globally to integrate and communicate information on the environment. Information on the state of the environment is crucial for making informed decisions and for policy formulation (DEAT 2007). According to DEAT (2005; 2007) there are three key objectives of SoERs. First, SoERs increase stakeholder awareness and understanding of trends and the state of the environment and their causes. Second, they provide a foundation for improved decision making at all levels. And third, SoERs facilitate the measurement of progress towards sustainable development.

Our third year project will focus on four questions in an attempt to develop a SoER for Grahamstown. These are (DEAT 2007): (1) What is happening in the environment (i.e., what are the environmental conditions and trends)? (2) Why is it happening (i.e., what are the human and natural causes of these changes)? (3) What will happen if we do not act now (i.e., are the health, economic, social and ecological implications of these changes significant)? (4) What are the opportunities and constraints (i.e., what are, or can we do about it? What are the implications of society's response?)?

Given this background, the DPSIR is a widely used organising framework for SoER's. It is an organising system developed in the social sciences that has been applied particularly for organising environmental, and later, sustainable development reporting. The framework assumes cause and effect relationships between social, economic and environmental systems, which are analysed in terms of:

- Driving forces of environmental change
- Pressures on the environment
- State of environment and trend
- Impacts on the environment (society, economy and biophysical environment).
- Response of society to environmental status and trend

The DPSIR framework often forms the basis for analysis of environmental status and trend, but it does not necessarily have to be an explicitly visible part of the report. Nevertheless, use of the

logic and common language to explain environmental status and trend is likely to result in consistency across specialist studies and therefore greater understanding and use of the SoER. It is also likely that different specialist studies will focus on different components of the DPSIR framework such that those studies that analyse biophysical aspects of the environment might focus more heavily on status and trend, while economic aspects might focus more on drivers and pressures.

The organising framework recognises linkages between drivers, pressures, state, impact and response in that drivers lead to pressures, which in turn affect the state of a system, which leads to intended or unintended impacts and leads to a human response (Figure 1). The response may focus attention on the drivers, pressures or state of the system, which may be altered deliberately in order to achieve desired outcomes.

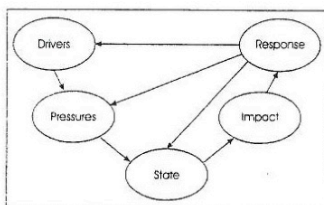


Figure 1: Interrelationships between drivers, pressures, state, impact and response as conceived in the DPSIR Framework.

For additional information on the DPSIR framework it is useful to consult:
<http://www.fao.org/ag/againfo/programmes/en/lead/toolbox/Refer/Env/Indi.htm>

2. Learning outcomes

The critical cross-field learning outcomes include ability to:

- identify and solve problems;
- work in a team;
- organize and manage oneself; and
- communicate effectively.

The specific learning outcomes include ability to collect, analyse and evaluate information. Students are expected to apply project management principles and the scientific method.

3. Key themes for the SoER

The SoER for Grahamstown will look at the trends and condition of the environment for each of the key themes highlighted below (with names of supervisors indicated):

1. Human risk and vulnerability in Grahamstown (S Shackleton)
2. Water security (W Ellery)

3. Environmental organisations and institutions: roles, activities and concerns (J Gambiza)
4. Solid waste management and recycling (J Gambiza)
5. Storm and waste water management (W Ellery)
6. Urban green space: biodiversity and conservation (C Shackleton)
7. The condition and use of urban green spaces (C Shackleton)
8. Domestic energy use (J Gambiza)
9. Human settlement (W Ellery)
10. Future scenarios for a sustainable city (S Shackleton)
11. Notions of emotional and psychological well-being in relationship to the state of the environment (S Shackleton)
12. Futures for young people (C Shackleton)
13. Economic sustainability (TBA)

Each group will be required to choose one theme for their SoER.

4. Assessment criteria

The project assessment tasks are designed to enable you to achieve specific learning outcomes. By the end of the project learners should be able to:

- plan and execute a research project;
- produce professional presentations of research plans and reports;
- employ a variety of research methods while undertaking research;
- analyse and interpret research findings;
- evaluate and critique documents;
- write and organise professional research reports that integrate and combine inputs from various team members of differing skills;
- draw on literature and case studies of similar work to contextualise the results and interpretations of own research;
- conduct self study and synthesis of relevant information;
- work together in a team;
- collate information from a number of sources into a single coherent document; and
- demonstrate creativity in seeking practical and workable solutions to problems.

5. Criteria for identification of projects

- Each group project must seek to:
 - identify key issues for each of the themes (see Section 3 above) using the methods suggested in the SoER toolkit (DEAT 2007);
 - identify key indicators for each issue;
 - bridge at least two of the three dimensions of environmental systems, namely, environmental, social or economic;
 - cater for the interests and strengths of all members of the group;
 - undertake data collection activities over approximately 15 – 25 person days;
 - involve replicate sampling;

- comply with all ethical requirements of research, and
- demonstrate good professional practice at all times.

6. Schedule and weighting of deliverables

The overall scheduling and deliverables for each project are indicated in Table 1. Guidelines and marking criteria for each deliverable are provided in subsequent sections.

Table 1: Scheduling and deliverables for Environmental Science 3 projects for 2011.

Semester 1			Semester 2		
Date	Activity	Mark weight	Date	Activity	Mark weight
Feb 18	Receive project outline and briefing: J Gambiza		Jul 29	Check in with supervisors wrt progress: data analysis	
Feb 25	Finalise projects and groups: Meet staff in tutorial period		Aug 05	Data analysis	
Mar 04	Prac on project proposal: Meet J Gambiza		Aug 12	Deliver progress report 2	3%
Mar 11	Develop project proposal and literature review		Aug 19	Check in with supervisors wrt progress	
Mar 18	Practical on interview schedule design and ethics: S Shackleton		Aug 26	Preparation of report draft	
Mar 25	Submit literature review, conduct pilot study	8%	Sep 01	(THURSDAY) Deliver written project report	
Apr 15	Deliver verbal project proposal to Department	4%	Sep 02	Peer assessment of report draft: Submit	3%
Apr 21	(THURSDAY) Deliver written project proposal		Sep 30	Deliver verbal presentation to Department	5%
Apr 29	Peer assessment of written project proposal: Submit	3%	Oct 07	Prepare final report	
May 06	Submit final Project proposal	12%	Oct 14	Deliver final report	17%
May 27	Deliver written progress report 1	5%	Oct 21	Presentations to decision-makers	4%
Total weight for semester 1		32%*	Total weight for semester 2		32%*

* The remaining 68% in each semester comes from the coursework component of the course

7. Supervision and assessment of projects

The year-long project will be under the co-ordination of James Gambiza, with input from Fred Ellery, Charlie Shackleton and Sheona Shackleton. Marking of outputs may be distributed between different staff members throughout the year, and there is a measure of peer assessment. Requests for equipment should be directed to Kathy Cassidy well in advance of the due date.

8. Setting up a work schedule and a work ethic

Three features are immediately evident when scanning Table 1.

- The overall weighting of the practical project contributes a significant proportion of the Enviro 3 mark in both semesters. Therefore, doing well in the practical can ease pressure on the need to do well in exams and requires that you put in effort throughout the year.
- There are relatively few formal practical sessions. Thus, you are expected to work independently and consistently throughout the year. Practical periods should not be treated

as free time followed by a sudden rush of activity a day before a deliverable is due. Try and make use of the scheduled Friday afternoons for working on the project. Work steadily and continuously throughout each semester. The project plan requires that you develop a project schedule. Once approved, you will be expected to stick to it.

- A variety of deliverables are due. This requires different skills. Try to play to the strengths of individual team members when preparing the different deliverables, but ensure the work load is shared fairly amongst all members.

9. Guidelines for preparation of a literature review

- Any piece of research needs to be informed by what has been done previously as this can guide the approach adopted, analytical techniques used, and problems that influenced the degree of success of the previous research. In other words one needs to learn by what has happened before in order to develop critical thinking and originality.
- Consequently, once each group has chosen a research topic, they need to undertake a literature search. Such a search should focus on recent and peer-reviewed sources.
- A good place to start is papers or text books that deal with the topic at a general level.
- Once you have a basic insight into the topic, seek more in-depth sources and case studies.
- Once you have accumulated 15 – 25 references dealing with the topic in question, critically read each one, making notes on:
 - Definitions of key concepts or variables
 - Context (e.g. situation analysis in developed or developing world or rural or urban areas; knowledge, attitudes, practices of educated versus uneducated people etc)
 - The key questions that they asked to meet their objective
 - Data collection methods used (*very important!*) including questionnaire surveys
 - Data analysis methods used (*very important!*) including questionnaire surveys
 - Problems they encountered in collecting, analysing or interpreting the data (e.g. they state that with hindsight the sample size was too small)
 - Main conclusions reached
- Each member of the group should jot down in bullet form the key messages that you have learnt from the material.
- Discuss the key messages as a group, questioning them against your own insights from the broader material as well against each other (are there contradictions, differences of opinion, different findings) – i.e. subject them to critical analysis.
- Arrange the key points in a logical order.
- Take each key message and flesh it out into a paragraph or two for the review.
- Your review should cover the following topics:
 - A brief overview of evolving thinking on the topic (i.e. how has it changed over the last few years or decades)
 - Definitions of key terms
 - Conceptual models of relationships or functions might be useful
 - How the magnitude of the 'problem' has been typically measured and any discrepancies or difficulties with measurement approaches
 - Success stories in addressing the 'problem'

- o Critical analysis of the above
- o Key knowledge gaps or areas of uncertainty
- Your review should not be longer than 2 500 words (excluding references), comply with the departmental writing guides, and be fully referenced.

A general note should be made with respect to criteria that will be used for evaluation in that they may be slightly modified during the course of the year. For example, some criteria may not be viewed as relevant to a particular project.

Marking criteria for the literature review are provided in Appendix 1. Consult these before submitting your literature review

10. Guidelines on preparation of verbal project plan

- A verbal presentation of the project plan is a mechanism to allow students to:
 - o practice and further develop presentation skills developed during Enviro 2, and
 - o receive peer feedback from a broad audience regarding the proposed approaches, methods and scheduling of project activities. If some critical flaws or minor issues are identified they can be addressed before the written project plan is finalised.
- Such a presentation is relatively common in Environmental practice where consultants or researchers have to present their plans to the client or funder for final evaluation.
- The presentation must cover all key aspects of the plan, namely:
 - o Brief introduction and rationale – with reference to literature
 - o Objective/s and key question/s or hypothesis
 - o Relevant attributes of the study site
 - o Approach and *detailed* methods
 - o Anticipated data analyses
 - o Assumptions
 - o Ethical considerations
 - o Time schedule (Gantt chart displaying each activity)
 - o Budget
- The presentation must be clear, innovative and make use of visual aids. The marking criteria for verbal presentation of project plans (Appendix 2) provide more pointers.
- Each group will be allowed a maximum of 10 minutes for their presentation. Timing is crucial, and you *will be cut off* at 10 minutes and loose marks accordingly.

11. Guidelines on preparation of written project plan

- A detailed project plan is essential for any research project. A good plan communicates all the details to the reader, and where this is very well done it may be good enough to simply cut and paste sections into the final report. In other words, doing a good job in the planning stages not only helps avoid pitfalls and disasters, but also saves work later on.
- The written project plan should cover the same areas as outlined in the verbal plan (Section 10), but be fully referenced and have a more detailed overview and rationale.
- There is no stipulated length for the plan; the more concise the better, but you must ensure that each section has adequate detail. The reader has to be able to fully comprehend

precisely what will be done, why, how and when. A poor plan inevitably results in a poor project.

- Where questionnaires or surveys will be used, a questionnaire or full details of the survey design should be included.
- By the time that the written proposal is handed in the data collection should have been subjected to a pilot study
- Marking criteria for the written project plan are indicated in Appendix 3.

Each group's project plan will be peer assessed by another group. The individual project plans and the peer assessments will be assessed separately by a staff member, and a mark will be assigned for the peer assessment. The final project plan will be assessed by a staff member. Marking criteria for the written project plan are indicated in Appendix 4.

12. Guidelines for preparation of a progress report

- A progress report is a way of communicating to a funder, client, manager or colleagues about the progress one is making towards a specific previously agreed aim or aims.
- A good progress report is short, to the point and allows the reader to quickly:
 - o ascertain whether or not the various facets of a project are on track
 - o if they are not, what is the challenge or cause of the delay
 - o what solutions you envisage to address the challenge/problem
 - o what deviations have been made from the agreed original plan and why
- In terms of "being on track" one can monitor achievement of aims against certain criteria, but the most common ones are against a previously agreed time schedule, and/or budget.
- Your progress report should be no more than 1 200 words, and should
 - o remind the reader as to the aims or tasks to be done
 - o inform the reader as to what level of achievement the aims or tasks have been met
 - o indicate whether or not these levels are on track not relative to the initial project plan
 - o if not, identify what is the cause of the delay or deviation and what you intend to do about it to get back on track by the next reporting period
 - o can contain some preliminary/interim results as a demonstration of progress
 - o not contain any references
- The marking criteria for progress reports are provided in Appendix 5.

13. Guidelines on preparation of final verbal report

- A verbal presentation of the project outcomes is a mechanism to allow students to
 - practice their presentation skills developed during Enviro 2, and
 - receive peer feedback from a broader audience regarding the final results, analysis and conclusions of their project. If some critical flaws or minor issues are identified they can be addressed before the project report is finalised.
- The presentation must cover all key aspects of the report, namely:
 - Brief introduction and rationale – with reference to literature
 - Objective/s and key question/s or hypothesis
 - Relevant attributes of the study site
 - Approach and methods employed for data collection and analysis
 - Assumptions
 - Detailed
 - Conclusions
- The presentation must be clear, innovative and make use of visual aids. The marking criteria for oral presentation of the project findings provide more pointers (Appendix 6).
- Each group will be allowed a maximum of 10 minutes for their presentation. Timing is crucial, and you will be cut off at 10 minutes and loose marks accordingly.

14. Guidelines on preparation of final written report

The final report is the most significant output of any research or consultancy process. That is because it is a hard copy deliverable that can sit around for many years to come for others to use as a resource in their own work, or to constantly trash as an example of how not to do things. The verbal presentations might make immediate impact on a client or lecturer but are soon forgotten, whereas the final report lives for many years.

However, if you had (i) a good literature review, (ii) a good plan in the first place, and (iii) a good verbal presentation of the results (meaning you have done most of the data analysis and received feedback on them), then all the foundations are in place for a good final report.

- Examine the feedback you received on the previous deliverables, discuss it as a group as to how you can consolidate the good points and eliminate the weak points
- Structure the report in a logical flow.
- Model your report on a published scientific paper – i.e. learn from how they set out and report a piece of scientific work.
- There is no stipulated minimum or maximum length for the report. However, remember that you need to focus on clear and convincing findings and the relationships between them. Therefore, you might opt to not present some of the data. Do not duplicate the same findings in both Tables and Figures.
- Ensure you comply with the departmental writing guidelines.
- Marking criteria for the report are provided in Appendix 7.

The final reports will be assessed by peers in the first instance, during the practical period on 17 September, since the first draft is submitted on Thursday 16 September. The reports and peer evaluations will be screened by a member of staff and returned to students and a mark will be

awarded for the peer evaluation. This will give opportunity to revise the final report for submission for final marking of the final reports.

15. Group peer review of contributions

On the due date for each deliverable each group must also submit group peer-review forms for each group member. Peer review forms (see Appendix 6 of the Enviro 301 course handout) must be submitted for every deliverable that is a product of group work, including both written assignments and verbal presentations. The usual penalties for late submission will apply until all forms from each group are handed in. ALL peer review forms should be submitted via RUCConnected. A pseudo-assignment will be set up to enable you to upload your peer assessment forms. As you should know by now, only the lecturers can see your forms.

16. Plagiarism

It is assumed that by now all learners in the Enviro 3 courses are well aware of what plagiarism is and how to avoid it. Any learners who feel they are still unsure should please contact the project co-ordinator. If plagiarism is detected in any of the project deliverables the departmental plagiarism penalties (as per the Enviro 301 course handout – Appendix 7) will be invoked. A plagiarism declaration must accompany each written deliverable.

17. Key references

DEAT 2005. *State of the Environment Reporting: Guidelines for Municipalities*. Pretoria, Department of Environmental Affairs and Tourism, State of Environment Directorate.

DEAT 2007. *State of the Environment Reporting (SoER) Toolkit*. Pretoria, Department of Environmental Affairs and Tourism.

Appendix 1: Marking criteria for project literature review

GROUP:	EXAMINER:	Marks
FORMAT, PRESENTATION & STYLE		
Polished, imaginative approach, fluent writing, accurate grammar and spelling, no repetition, no inconsistencies. Conforms to dept writing guides. Good use of headings to structure logical flow.		15
CONTENT & KNOWLEDGE		
Comprehensive and in-depth summary of the topic, uses appropriate terminology (with key terms defined), uses conceptual models in areas where it helps comprehension		40
CRITICAL REASONING		
Examines all angles of the topic, considering mainstream and counter views. Questions received wisdom, especially by considering the context in which previous empirical results were recorded. Identifies gaps in logic or understanding. Substantiates viewpoints or ideas with examples. Sets a logical foundation for the planned practical project		20
CONCLUSIONS		
Sound conclusion/s based on the preceding arguments and substantiated by previous work		10
REFERENCE LIST		
Full details for each reference are provided, as per examples in the Department of Environmental Science writing guidelines. Refs are in alphabetical order. All refs cited in the text are in the list and vice versa. Most (> 70%) are from recent journal articles. No inconsistencies in style or punctuation from one reference to the next.		15
TOTAL		100

Appendix 2: Marking criteria for verbal presentations of project plan

GROUP:	EXAMINER:	Marks
INTRODUCTION		
Title of project is clear. The project should be introduced in a logical and interesting manner, essentially explaining why the project needs to be done. Reference to previous published work is <i>mandatory</i> , and the hypothesis to be tested relative to that work.		8
OBJECTIVE & KEY QUESTIONS		
The student provides a concise statement of what the project is addressing and the specific questions that will be answered to address the overall objective		7
METHODOLOGY		
<ul style="list-style-type: none"> • Data collection (sample size adequate; variables measured and tools/approach used match key questions to be answered; number of treatments is acceptable) • Data analysis (student has given appropriate thought to how the data will be analysed) • Assumptions and possible pitfalls (assumptions underlying the project approach have been identified and a contingency plan in place should they be revealed to be invalid) • Timing of activities (Gantt chart is presented so can check if the schedule of project activities is compatible with the requirements of the project) 		40
PRESENTATION		
<ul style="list-style-type: none"> • Language (use of technically and grammatically correct English; not garbled, rushed etc) • Projection of voice & eye contact (student does not mumble into the overhead or notes, looks up frequently, speaks loudly enough, and projects voice towards the audience) • Fluidity (the presentation is fluid without interruption; it is not simply read from slides) • Flow (the presentation has a logical structure & flow between sections) • Use of visual aids (suitable use of visual aids to support the audience, including overheads, slides, pieces of novel equipment, specimens, etc. Not too many, or too few) • Nature of the visual aids (suitable in terms of use of colour, legible font size, appropriate spacing, headings, amount of information/text on each one, etc.) • Timing (is the talk significantly under or over the allotted time) 		30
QUESTIONS		
The student is able to defend his/her approach, backed up with reference to other research, preliminary data. They could elaborate confidently and concisely when requested.		15
TOTAL		100

Appendix 3: Marking criteria for written project plan

GROUP:	EXAMINER:	Marks
INTRODUCTION		
The project should be introduced in a logical and interesting manner, explaining why the project needs to be done. Contextualisation should include a world perspective of the issue, followed by an African or developing nation perspective and finally South Africa and the particular study region. There should be evidence of a <i>critical</i> review/analysis of previous work (based on previous literature review) making a logical lead into the objectives and questions for the study. Reference to other work is necessary, and should be mainly recent and relevant journal articles.		10
OBJECTIVE & KEY QUESTIONS		
The proposal should have a concise statement of what the project is addressing/hypothesis and the specific questions that will be answered to address the overall objective.		5
STUDY AREAS		
Pertinent details of the Study Area are provided to allow the reader to evaluate whether or not it is suitable for the proposed work, or that it is atypical in some way. What details are relevant depends upon the nature of the project, but could include location (latitude & longitude; altitude; proximity to regional centres or sources of influence), environmental data (abiotic & biotic), social data (population and hb sizes, gender distribution, employment status institutions, language) and economic (mean incomes, GDP).		15
METHODS		
<ul style="list-style-type: none"> • Data collection (sample size is adequate; variables measured and tools/approach used match the key question to be answered; units of measurements are clear; project is not overboard in terms of number of treatments or sample sites). • Data analysis (details of proposed analyses are provided, and they match the format of the proposed raw data). • Assumptions & possible pitfalls (relevant assumptions underlying the project approach have been identified and a contingency plan in place should they be revealed to be invalid). • Ethics (ethical consideration of the project has been considered) 		40
TIMING & BUDGET		
Timing of activities & budget (schedule of project activities is clear, & is compatible with the requirements of the project, seasonality. The budget is realistic, all items included, calculations & totals correct).		10
REFERENCE LIST		
Full details for each reference are provided, as per examples in the Department of Environmental Science writing guidelines. Refs are in alphabetical order. All refs cited in the text are in the list and vice versa. Most (> 70%) are from recent journal articles. No inconsistencies in style or punctuation from one reference to the next.		10
PRESENTATION & STYLE		
<ul style="list-style-type: none"> • Format (follows and strictly conforms to the dept writing guides) • Accuracy (no typographical errors, limited grammatical errors, no inconsistencies in styles, punctuation, hyphenations, etc., it is clear the document has been proof-read). • Layout & length (the proposal should be neatly presented, headings clear and in logical sequence, tables and figures do not spill over from one page to another, spacing not irregular nor cramped up). 		10
TOTAL		100

Appendix 4: Marking criteria for peer assessment

GROUP:	EXAMINER:	Marks
CONSULTATION WITH THE RELEVANT ASSESSMENT CRITERIA Extent to which the assessment criteria have been used as a basis for evaluation of the assignment.		15
CRITICAL ENGAGEMENT WITH THE CONTENT OF THE ASSIGNMENT The extent to which there is evidence of critical engagement with the material presented in the assignment, questioning the way the assignment was conceived and conducted.		30
CONSTRUCTIVE SUGGESTIONS The extent to which the assessment provides constructive comments that can be used to improve the assignment at the level of: Offering suggestions for editorial improvement Offering suggestions for broad structural improvements to make the document flow Providing an overall appraisal of the strengths and weaknesses of the assignment		30
MARK ALLOCATION The extent to which there is general agreement in the allocation of marks between the peer evaluation of the assignment and the lecturers evaluation of the assignment		10
REFERENCE LIST Assessment of the citation of references and the consistency applied to references in the references list		15
TOTAL		100

Appendix 5: Marking criteria for project progress reports

GROUP:	EXAMINER:	Mark allocation
FORMAT, PRESENTATION & STYLE Polished, imaginative approach, fluent writing, accurate grammar and spelling, no inconsistencies, no repetition. Conforms to the dept writing guides. Good use of heading and sub-headings to structure a logical flow.		15
CURRENT STATUS OF PROJECT PROGRESS Clear statement of current status of the project relative to initial aims and defined tasks		40
PROBLEMS ENCOUNTERED & WHY Concise outline of any problems encountered so far, and what the anticipated or unanticipated cause of those problems were. Some estimate of the magnitude of the problem is necessary, i.e. how has it affected the progress of the project relative to the original plan. What solutions were implemented to negate the problems – if not possible how has the project changed		20
CHANGES TO ORIGINAL PROJECT PLAN If changes have been made to the original project plan, whether in substance or timing of activities, report them, outlining why they were necessary.		15
SUMMARY STATEMENT A summary assessment/statement of the progress of the project.		10
TOTAL		100

Appendix 6: Marking criteria for verbal presentations of project findings

GROUP:	EXAMINER:	Mark allocation
INTRODUCTION Title of project was clear. The project was introduced in a logical and interesting manner, essentially explaining why the project needed to be done. Reference to other work is mandatory and the hypothesis to be tested relative to that work if necessary. A summary of the structure of the talk to follow is provided		5
OBJECTIVE & KEY QUESTIONS The student provided a concise statement of what the project set out to address and the specific questions that were to be answered to meet the overall objective		5
METHODOLOGY <ul style="list-style-type: none"> Data collection (sample size was adequate; variables measured and tools/approach used matched the key questions; project was not overboard in terms of number of treatments or samples) Data analysis (data were subjected to appropriate analytical techniques) Assumptions and possible pitfalls (assumptions were identified and considered) 		5
RESULTS & CONCLUSIONS <ul style="list-style-type: none"> Format of results (the presentation of the results were clear and easy to understand through use of figures and tables; there was not too much information crammed into individual figures or tables; the key findings were highlighted; statistically significant results were highlighted) Conclusions (the student distilled a set of logical conclusions from the study, supported by the data they collected) 		40
PRESENTATION <ul style="list-style-type: none"> Structure of talk (the talk was well structured, followed a logical sequence and was balanced between the different components (e.g. did not spend 10 minutes on introduction and only three minutes on results and conclusions)) Language (used technically and grammatically correct English; not garbled or rushed, nor stunted with 'ums' 'ers' etc.; not peppered with slang) Projection of voice & eye contact (student did not mumble into the overhead or notes, looked up frequently, spoke loudly enough, and projected voice) Fluidity (the presentation was fluid without interrupting stops and starts; it was not simply read from the overhead or slide) Use of visual aids (suitable use of visual aids to support the understanding of the project by the audience. Included overheads or slides, or PowerPoint slides or pieces of novel equipment, specimens, etc. Not too many, not too few) Nature of the visual aids (suitable in terms of use of colour, legible font size, appropriate spacing, headings, amount of information/text on each one, etc.) Creativity: evidence of lateral thinking, doing things differently Conclusion/finishing off & timing (the talk ended off well, did not just come to an abrupt or hanging halt; the talk was not significantly under or over the allotted time) 		30
QUESTIONS The student was able to defend his/her approach, results and conclusions, backed up with reference to other research if necessary. They could elaborate confidently and concisely when requested. Did not repeatedly misunderstand questions, nor ramble on for ages in response to a single question; did not contradict themselves between or within answers.		15
TOTAL		100

Appendix 7: Marking criteria for final project report

GROUP:	EXAMINER:	Mark allocation
ABSTRACT, INTRODUCTION, OBJECTIVES & KEY QUESTIONS		10
Title of project is clear, unambiguous and not too long. The abstract is concise and covers all the main points of the paper. The project should be introduced in a logical and interesting manner, explaining why the project needed to be done. Contextualisation should include a world perspective of the issue, followed by an African or developing nation perspective and finally South Africa and the particular study region. Reference to other work is mandatory, and should be from mainly recent and relevant journal articles. There should be a concise statement of what the project aimed to address and the key question or hypotheses. The key questions must be precise, with no ambiguities within or between questions. The objective/questions should follow on in logical fashion from the introduction.		
STUDY AREA/S OR CHARACTERISTICS OF SAMPLE POPULATION		5
Pertinent details of the study area, laboratory setup must be provided to allow the reader to evaluate whether or not it was suitable for the proposed work, or that it was atypical in some way. What details are relevant depends upon the nature of the project, but could include location (latitude & longitude; altitude; proximity to regional centres or features of influence), environmental data (abiotic & biotic), social data (population and hh sizes, gender distribution, employment status institutions, language) and economic (mean incomes, GDP).		
METHODS		5
Details of the data collection and analytical methods are concise and clear, such that anybody else could repeat the study in exactly the same way. Units are supplied. Assumptions or shortcomings are mentioned. Sample size was appropriate.		
RESULTS		25
Results are clear, and follow a logical flow. No repetition between tables and figures. No errors in tables or figures (e.g. adding of totals, units clear, etc.). Key results are highlighted and supported by relevant statistical analyses. Did not overemphasise small details or statistically non-significant results at the expense of key findings.		
DISCUSSION & CONCLUSIONS		25
The discussion highlights and discusses the main findings of the work, and compares them to other relevant literature. Reasons for differences or similarities are clearly thought out. An analytical and critical approach is readily apparent, and lines of argument or conceptual models are logical and supported by own data or reference to other work.		
REFERENCE LIST		10
Full details for each reference are provided, in the format for the target journal. All refs cited in the text are in the list and vice versa. Formatting and punctuation in the list is consistent and error free. 70 % of references are journal papers; the majority of refs are < 5 years old.		
PRESENTATION & STYLE		10
<ul style="list-style-type: none"> * Language (style, grammar and syntax are correct; use of technically and grammatically correct English; wording should be clear, unambiguous and without colloquialisms; abbreviations/ acronyms are defined upon 1st presentation; no repetition). * Accuracy (no typographical errors, limited grammatical errors, no inconsistencies in styles, punctuation, hyphenations, etc.; it is clear it has been proof-read). * Length (it is not too long, nor too parsimonious; all relevant details are provided). * Layout (it is neatly presented, headings clear and in logical sequence, tables and figures do not spill over from one page to another, spacing not irregular nor cramped up). * Structure and flow (internal flow is good, and structure is easy to follow, both within and between sections) 		
ORIGINALITY, INNOVATION & CRITICAL REASONING		10
Critical thinking is evident throughout the project, from framing of the research question/s to discussion of results and final conclusions. Innovation and originality are encouraged in presentations, development of conceptual models, etc.		
TOTAL		100

Appendix VI

**RHODES UNIVERSITY
MASTERS IN COUNSELLING/CLINICAL PSYCHOLOGY I
COMMUNITY PSYCHOLOGY THEORY COURSE
2010**

Lecturers: Prof Michael Guilfoyle (m.guilfoyle@ru.ac.za)
Theresa Edlmann (t.edlmann@ru.ac.za)

1. PURPOSE OF THE COURSE

This 10-week module will introduce you to theories and concepts for reflecting on a narrative or social constructionist approach to community psychology. A major focus of this module is on helping you to think about the roles that psychologists can play, the theoretical underpinnings for, and the principles concerning interventions that address social and community problems.

The course will consist of three phases:

- Phase One: input on the context and theoretical frameworks in which the Community Psychology course is run
- Phase Two: input on issues of identity and self-other relationships, and their relevance for Community Psychology
- Phase Three: preparation and presentation of group research into possible applications of Community Psychology practice

The focus of the course will be on challenging you to **develop a way of thinking** about socio-cultural and community interventions that can guide your work, rather than providing a specific set of practical skills. Through actively working with the implications of narrative or social constructionist theory for specific types of interventions, your task in this course will be to develop your own informed, innovative and creative approach to community work, based on a critical engagement with theory in preparation for your practical work in the second term.

This theory course is complemented by the projects that you will be involved with in schools from April until September in that it provides theoretical underpinnings for the practical work undertaken. It will also provide you with a theoretical grounding from which to work in writing up your report at the end of the year.

2. OUTCOMES

After successful completion of this module, you should be able to:

- Discuss and debate a narrative or social constructionist theoretical approach to community psychology;
- Have a working knowledge of constructionist understandings of identity and self-other relations, and be able to demonstrate their relevance to community psychology;
- Elucidate the implications of this theoretical position for particular interventions and programmes;

- Outline intervention practices that draw on these principles;
- Maintain a critical and reflexive position on, firstly, your own role in interventions and , secondly, the theoretical underpinnings and interventions that this approach implies.

3. GROUP-WORK MEETINGS AND GROUP PRESENTATIONS

There are 10 meetings scheduled for this module. These will be used as follows:

Phase One

8 February	Introduction to the course Background to the theoretical and practical linkages in the M1 Community Psychology course (TE)
15 February	A background to Community Psychology in South Africa (TE)
22 February	Social Constructionism and Narrative Methods in Community Psychology (TE)
1 March	Social Constructionism and Narrative Methods in Community Psychology (TE)

Phase Two

8 March	Identity issues and Community Psychology (MG)
15 March	Identity issues and Community Psychology (MG)

Phase Three

12 April	Preparations/ research (MG)
19 April	Preparations/ research (MG)
26 April	Group Presentations (MG)
3 May	Group Presentations (MG)

5. READING AND RESOURCES

In December you were sent a letter requesting that you purchase and read the following introductory book to community psychology. If you have not done so, please ensure that you do read this as a basic background to the module.

Visser, M. (2007)(Ed) *Contextualising community psychology in South Africa*. Pretoria: Van Schaik Publishers.

You will be given and referred to other readings and resources during the course.