



CURRICULUM INQUIRY

IN SOUTH AFRICAN HIGHER EDUCATION

Some scholarly
affirmations and
challenges

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DEDICATION

This book is dedicated to all those teachers and researchers
in South African higher education institutions
who strive and succeed to change and improve curricula
on the basis of informed scholarly work.

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● PREFACE

There is surely no more important matter in higher education than the curriculum and so, there is in turn no larger matter for inquiry into higher education than the curriculum. And yet, the matter of the curriculum still does not attract the attention it deserves among those who conduct research into higher education (whether that be through scholarly research or research that is especially empirical in nature). Perhaps one reason for this near-absence is that the curriculum falls into an intermediate level of inquiry. On the one hand, it does not seem to require the elevated level of analysis required by policy framing, national funding and internationalism in and of higher education. On the other hand, it may seem to be too large a topic to bring into view when one is engaged in micro-studies of say the student experience and academic identity.

Yet other reasons lie readily to hand to account for the paucity of interest in the curriculum in higher education. The curriculum spans disciplines but universities continue to be structured around individual disciplines: talk of 'curriculum' requires a horizontal level of analysis while the structures of academic life run vertically, separating disciplines from each other. In addition, high and somewhat abstract theory engages with large and universal ideas such as globalisation, the knowledge economy, knowledge capitalism, the public sphere and the new digital environment and does so employing concepts such as epistemology, ontology, postmodernity and now even post-postmodernity. This kind of intellectual work, while crucial to a proper understanding of the place of the university in the world is pitched at too high a level to engage directly with the curriculum as such (except obliquely with ideas of bio-politics, and digital subjectivities).

But, and more significantly, there appears to be no large constituency with an interest in inquiring into the curriculum. The political and policy sphere considers, all too often, that its reshaping of the funding contours of higher education has no bearing on the internal life of institutions, such as the curriculum. The curriculum is simply a matter for the academic community to attend to. Also, students as consumers have no immediate interest in the curriculum but are interested in the experience with which they are presented. It follows that there is no constituency with an interest in curriculum as a general category, that in turn would justify and generate inquiry into the matter.

And yet curriculum matters. And it matters increasingly to universities. All around the world, universities are examining their curriculum offer. Why are they doing this? Surely, for a number of reasons. They are doing so in part presumably because of the market situation in which they are increasingly placed. They want to ensure that their programmes of study are likely to offer their students (now students as demanding customers) the kind of credentials and capabilities that they seek in going into the world,

especially into the labour market. They are doing it, therefore, in part so as to ensure a better alignment between higher education and the world of work. Universities too in managing tight budgets are looking to curriculum 'reform' for 'efficiency gains', not least in exploiting digital technologies. But some universities, as part of their own self-understanding and even their positioning, are doing it also so as to inject a particular value orientation into their curriculum offer. Here, we find, for example, the idea of the student as global citizen. It is understood that students will make their way in the world in various ways and that the world is increasingly global in its processes and demands. So the curriculum and its direction and its management are now becoming key issues.

A book of the kind we have here – *Curriculum inquiry in South African higher education: Some scholarly affirmations and challenges* – is an important volume, therefore. As Eli Bitzer and Nonnie Botha's Introductory Chapter indicates, we need both affirmations and challenges, and this volume offers both. The affirmations that it points to are the rich complexes of curricula that are offered in higher education, the particular ways in which curricula in South Africa are developing in both its national and global environments, and the sheer welter of ideas now present in South African scholarship. The challenges that it opens are considerable: organisational, disciplinary, theoretical and methodological. But this volume implicitly points to another challenge that we might call ideological: what kinds of values do we wish our curricula to represent? What kind of culture in the wider world might universities help to promote? What kind of world do we have in mind as a horizon for our curricula and the kinds of development that we want to engender in our students?

Thinking seriously about the curriculum is to do no less than think of the kind of world we want to help to bring about and of the kind of student development that would be fitting for that world. There is nothing less at stake behind a volume such as this collection.

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INTRODUCTORY CHAPTER

Eli Bitzer & Nonnie Botha

INTRODUCTION

Inquiry into higher education curricula or, what is sometimes referred to in a broader sense as ‘the curriculum’ in higher education, is a complex business. One important reason for this is that higher education institutions operate in increasingly super-complex environments (Barnett 2000, 2003, 2011) while the very idea of ‘the curriculum’ is unstable and its boundaries vague (Barnett & Coate 2005). Typical questions that arise on the issue of curriculum inquiry include whether the curriculum is merely confined to intended educational experiences and stated outcomes or whether the hidden curriculum should also be accounted for. What are the external and internal forces exerting pressures on the curriculum? Does the curriculum focus on the actual lived learning experiences of students or does it extend outside of the seminar, the classroom, the tutorial, the laboratory, the library or the computer centre? Does the curriculum have boundaries in terms of its geography, allocated time or responsibility? Where does the institutional concern for the curriculum start and end? Where do issues such as pedagogy, teaching, learning and assessment overlap within or across the curriculum? All of these questions and many others make curriculum inquiry a vast and complex field that cannot be even closely addressed within the confines of a single book.

However, one reason for promoting debate around the issue of curriculum inquiry is that the higher education curriculum is under-researched in South Africa. Ironically, the school curriculum is an area that has attracted much attention lately, but there is a paucity of inquiry into curricula in higher education – both by researchers and practitioners. Issues such as cultural and institutional differences in the curriculum, social justice and change, societal forces impacting on higher education curricula, the generic attributes debate, the impact of student diversity and others have not been well debated and researched. Recently, for example, a *lekgotla* (meeting of elders) on curriculum transformation was convened by the College of Law at the University of South Africa (Dell 2011:1) where the quest for a more ‘Afro-centric’ curriculum

was discussed. At this meeting the current minister of Higher Education and Training announced that a 'learning and teaching charter' is on the cards to address, among other issues, whether higher education curricula are sufficiently relevant to the South African context and the African context in general.

Obviously, there are many reasons for the paucity in curriculum research, one being the merging of a number of higher education institutions in the past number of years, which accounts for consuming the time of academics and researchers, as many will be able to tell. Other reasons include continuous societal and institutional transformation, an emphasis on student access and success, enrolment management and strategies for financial sustainability, institutional survival and well-being. Indeed there were and still are many issues and factors that lure higher education institutions, academic units and academics away from taking a hard look at curricula. Of course there have been exceptions such as in health sciences, engineering and accounting, where professional bodies and councils demanded serious investigation into the curricula of professional programmes, as well as more recent exercises by the Higher Education Qualifications Committee (HEQC) where qualifications in management (MBA programmes) and education (teacher education programmes in particular) were scrutinised. In general, however, it is only lately that the curriculum in higher education has become an area of serious inquiry and publicising the results.

INQUIRING OR ENQUIRING THE CURRICULUM?

Some language puritans might ask why the term 'inquiry' as used in this book and in relation to investigating curricula is preferred. It may therefore be necessary to get the semantics out of the way before proceeding.

While the terms 'inquiry' and 'enquiry' are often used interchangeably, there seems to be a difference between the two, which provides a good reason for us to prefer the former term in this book. Apparently, the term 'enquiry' means to ask a question, while 'inquiry' refers to a formal investigation (see <http://www.differencebetween.net>). Another difference lies in the etymological source of the prefixes 'en' and 'in'. The former comes from the French, denoting an informal position while the latter is from the Latin, denoting a more formal position. This distinction is underscored by Fowler's (1926) guide to English usage, which indicates that 'inquiry' should be used to a formal inquest, while 'enquiry' refers to the act of (informal) questioning. This distinction is also maintained in other forms of English such as Australian, American and Canadian English (Chambers Twenty-First Century Dictionary 2008).

In spite of a clear distinction in the meaning of the two terms, people seem to use them interchangeably. However, it is more commonly understood that while 'enquiry' represents a request for truth, knowledge or information, 'inquiry' points at a serious investigation into something. We have therefore decided to associate the latter term with investigations into or research conducted in connection with the phenomenon of curricula in higher education.

APPROACHES OR STRATEGIES OF CURRICULUM INQUIRY

Are approaches or strategies to inquire into ‘the curriculum’ in higher education different from inquiring into other social phenomena? Some authors agree on this question while others differ. Maila (2010:263) for instance, suggests that curricula are determined and guided by knowledge that is perceived as being critical for the advancement of humanity. As progress is often indicated and determined by curricula shaped in the ways of knowing of the dominant cultural group or languages that have achieved hegemonic status, the processes of inquiring into the curriculum seem crucial. The aim of inquiry in such instances may rather be emancipation than discovery or freeing societies from dominant knowledge than improving its impact. One side of the argument is therefore that curriculum inquiry presents a special case that might differ from other types of inquiry.

Williams and McNamara (2003:367), in contrast, acknowledge the curriculum as being part of a contextual, cultural or disciplinary history and they contend that it should be treated as an object of inquiry as such; curriculum inquiry is therefore something of universal interest to all curriculum scholars. The main concern for inquiry in this case would be with issues such as low achievement, improved pedagogy, assessment strategies or other curriculum-related issues. The view we take in this book is that curriculum inquiry in higher education does not differ substantially from researching other social phenomena and therefore curriculum researchers may use methodologies and methods of inquiry that, as in other areas of social inquiry, are compatible to the research problems and questions under scrutiny. The work of Creswell (2009) provides useful guidelines for adopting appropriate research methods in curriculum inquiry that align with particular strategies of inquiry and the philosophical worldviews adopted.

For details on Creswell’s stand on appropriate methodology for inquiry into social phenomena the reader is referred to his work. However, what we would like to briefly point out here is the fact that philosophical positioning will inevitably influence the mode and methods of inquiry of any curriculum project. Creswell (2009:6) refers to at least four such philosophical positions or world views (also called paradigms or ‘basic sets of beliefs that guide actions’) to be aware of, namely post-positivist, constructivist, advocacy/participatory or pragmatic positions. In each case the position taken is largely determined by the aim of an inquiry – in this case, inquiry into the curriculum. For instance: working from a post-positivist paradigm results in empirical observation and measurement or verification of curriculum theory; a constructivist position would provide for deeper understanding, multiple participant understandings or social/theory construction; an advocacy/participatory position would probably render political, empowerment or change-oriented results, while a pragmatic position would be more problem-centred, pluralistic and oriented to real-world curriculum practices. Our aim here is not to provide a tutorial on research methodology but merely to point out that curriculum research, as in other forms of social inquiry, rests on paradigmatic choices – something of which the curriculum inquirer should be acutely aware.

THE SUBTITLE: AFFIRMATIONS AND CHALLENGES

As a subtitle for this book we have chosen a phrase containing the terms 'affirmations' and 'challenges'. The term 'affirmation' is derived from the Latin word *affirmare* which means 'to assert'. It points to a declaration that something is true or has been verified. The term 'challenge', on the other hand, points to an instigation or antagonisation to convince someone to perform an action they would otherwise not. It thus implies a difficult task, but in many instances a task that the person making the attempt finds more enjoyable because of that difficulty (see Sykes 1984; <http://en.wikipedia.org/wiki/Wiktionary>).

Much of this book has to do with these two issues: affirming what we already know about curriculum inquiry (however, some of the reviewers felt that we have moved beyond affirming curriculum knowledge and should rather refer to 'opportunities taken') and exploring the challenges of what might to come. Both of these issues are important since it seems to be of as much value to know where you come from and where you are, than to know where you might be going. Both these positions are covered in the content of the book, as will hopefully emerge from the contributed chapters. Some chapters focus obviously on affirming what we know, while others focus on the challenges ahead of us, and still others on both of these issues. The main concern of the book, however, is with curriculum in higher education as an object of inquiry. A few introductory remarks on this important phenomenon might be useful.

WHY THE HIGHER EDUCATION CURRICULUM AS A FOCAL POINT?

The decision to focus this book on the curriculum in South African higher education was driven by the fact that although there are intense debates about the strong forces that are currently shaping the curriculum in higher education – particularly in South Africa – very little has been published on this topic. The extent of the influence of these forces and debates on the curriculum is co-determined by the context and nature of a particular university – which means, in the South African context, any of the 23 public universities. Some of these debates are highlighted below.

The debate around what the orientation of a university could be is indicated by Coate (2009) when she asks whether the regional, national or international concern should be the main focus of curricula. Botha (2009) also indicates some dimensions of this debate in her discussion of the internationalisation of the university as compared to its localisation – in South Africa localisation often points to being situated on the African continent. Many South African universities are wrestling with identifying the most appropriate balance or focus in this regard, especially against the background of the skills shortage in the country on the one hand and the pressure to internationalise and globalise on the other.

The demands of the world of work also contribute to the shaping of the higher education curriculum in South Africa. The work of Donoghue (2008) refers to a move away from an 'ivory tower image' towards greater responsiveness to the needs of

society and to the utilitarian ideal. Some disciplines that do not serve this purpose are deemed to be of no use to society and are struggling to survive – some have lost the struggle or have made drastic changes. For example, philosophy and history departments have been closed down or merged with others at some South African universities. Virkunen, Markinen and Lintula (2010) contend that the world of work needs increasingly deeper specialisation, which has an impact on university curricula in particular. Partesan and Bumbuc (2010) have contributed to this debate by stating that the purpose of higher education is inevitably to improve students' chances to enter the world of work, therefore skills that are useful to society should be taught at universities. This is particularly relevant in a country such as South Africa where the unemployment rate of the 18 to 25 age group is close to fifty per cent.

The role of the workplace in co-determining the South African university curriculum also manifests in the need for a particular mix of curricula in comprehensive universities as compared to the curricula of a university of technology and research-oriented universities. The curriculum needs of comprehensive universities are discussed extensively by Muller (2008), while Botha (2009) points to the debate around whether such institutions should focus on a vocational or a liberal curriculum.

Barnett and Coate (2005) have already pointed out that the university needs to link to society through engagement with external non-academic communities as well. This is highlighted again by Coate (2009) when she refers to the need for civic engagement. Also, the university curriculum as an instrument of promoting social justice and transformation has been highlighted in literature (Jansen 2009; Terwel & Walker 2004; United Nations 2010) and has manifested in South African universities in the form of strategic restructuring (Smart 2008) and, in some cases, curriculum change (Hannon, Baron & Hsu 2006; Isern & Pung 2007).

The powerful influence of information technology on the university curriculum (UNESCO 2008) manifests in blended learning, which has been suggested as a useful strategy for serving more students. It therefore contributes to debates around curricula serving mass education compared to selective education, as well as contact teaching compared to distance education (Botha 2009). Similarly, Coate (2009) has pointed out the need for new curricular spaces which could be enhanced by the increased use of information and communication technology.

What is an exciting feature of this book is that most, if not all, of the above-mentioned debates are touched upon in some way or another in its various chapters. This emphasises the importance and potential impact of these debates, factors and forces on curriculum inquiry and development in South African higher education. We shall therefore briefly refer to the structure of the book and the different chapter contributions to illustrate the point.

THE STRUCTURE AND CONTENT OF THE BOOK

Part One, which is titled *Revitalising curriculum inquiry – Perspectives of researchers*, contains a number of potentially useful perspectives on curriculum inquiry into higher education in South Africa. In the *opening chapter*, Bitzer provides a brief overview of documented curriculum research in South African higher education conducted prior to and beyond the dawn of the post-1994 democratic era in South Africa. Factors that have impacted on curriculum planning and inquiry in higher education are highlighted and a contextual framework is suggested for understanding and further exploring higher education curricula.

In *chapter two*, Du Toit points to various viewpoints reflected in literature as to what the concept 'curriculum' entails. The definitions of the concept of *curriculum* are underscored by various forces that bring their influence to bear on inquiring and developing curricula. From these theoretical perspectives different curriculum types and frameworks emerge which serve as a useful platform for curriculum inquiry. Le Grange enriches the theoretical perspectives emphasised in Du Toit's chapter by pointing out in *chapter three* that in formal education the term 'curriculum' was first used with reference to the university rather than the school. Today, however, most debates on curriculum make reference to school education rather than higher education. Given the complex set of forces (both global and local) that influence what knowledge is included or excluded in university learning programmes, he finds it fitting to reflect on four prominent challenges for the higher education curriculum in contemporary South Africa. Links and sentiments to Sue Clegg's arguments on dominant curriculum discourses in higher education in the UK (see Clegg 2010) seem quite prominent in this chapter.

It is common knowledge that universities in South African higher education represent different organisational types. In *chapter four*, Shay, Oosthuizen, Paxton and Van de Merwe indicate how the establishment of the comprehensive university in South Africa (mainly as a result of the merging of a traditional university and a former technikon), as one organisational type, raises a number of challenges – both practical and conceptual. Comprehensive universities have had to offer both general formative qualifications typically associated with universities and vocational qualifications typically associated with technikons without any principled basis for differentiation, progression or articulation. Drawing on the work of the South Africa Norway Tertiary Education Development (SANTED) project at the Nelson Mandela Metropolitan University, this chapter offers a conceptual framework for knowledge and curriculum differentiation. They apply the framework to the analysis of a number of curriculum cases in order to expose the selection and sequencing of educational knowledge, with a particular focus on differentiation between diploma and the degree. Based on these findings, this chapter proposes a set of provisional principles for curriculum design, progression and articulation.

With *chapter five*, Adam and Cross contribute to debates about curriculum reform in the humanities by reflecting on the findings of a case study of a faculty of humanities at one of South Africa's leading higher education institutions, Wits University. They focus on emerging trends in curriculum reform and reflect on its implications for knowledge production in the humanities by asking and addressing three key questions: (1) What are the drivers of curriculum change? (2) What are the emerging curriculum trends and strategies? and (3) How does this influence knowledge conception?

The first section of the book concludes with Lockett's contribution in *chapter six* by drawing on critical/social realist theory in order to develop a conceptual framework for a research design for curriculum inquiry. Lockett first sets out a philosophical framework based on critical realism, which she claims is compatible with Bernstein's pedagogic device. She then shows how a research design might be developed on the basis of this theoretical platform to address a pressing curriculum issue in the humanities at the University of Cape Town, a research-intensive South African university. It is argued that the goal of an adequate methodology for curriculum research is to reveal how individual agency is mediated by social structuring and cultural conditioning that set up situational logics in particular institutional contexts.

Part Two, titled *Challenges in reconceptualising undergraduate and postgraduate education*, points towards inquiry into a number of emerging curriculum issues. *Chapter seven* focuses on how intercultural issues related to curricula in higher education could be researched. To facilitate this explication, Botha points out how university campuses across the world are increasingly becoming populated with students from diverse cultural backgrounds. Universities need to inquire into and create curriculum spaces where relations between members of different cultures are regulated by negotiation and creativity. In order to stimulate thought, debate and further research in this area, this chapter explores the concepts of multi- and intercultural education as a curriculum issue, characterises strategies for infusing interculturalism into the curriculum, highlights some trends in recent intercultural curriculum inquiry and indicates some challenges and directions for future research.

In *chapter eight*, Bitzer explores theoretical contributions from Max-Neef, Bernstein and Gibbons, mainly to foreground two key concepts in curriculum inquiry: trans-disciplinarity and curriculum spaces. It suggests that both concepts are under-researched in curriculum planning. A case study, involving a cross-faculty coursework master's programme in Health Sciences Education, and in particular the module Curriculum Analysis in Health Sciences Education, is used to explore 'weak' and 'strong' trans-disciplinarity and Bernstein's relational curriculum theory of 'strong and tight' versus 'weak and loose' disciplinary or knowledge boundaries. Several epistemological questions regarding cross-faculty curriculum inquiry and development in postgraduate courses are raised and pointers are provided for possible improved future curriculum design in joint coursework master's programmes.

CURRICULUM INQUIRY IN SOUTH AFRICAN HIGHER EDUCATION

In *chapter nine* Garraway attests that curriculum inquiry in more applied or professional fields in South African universities has mostly been dominated by Bernsteinian-derived approaches to different forms of knowledge. Therefore, more socio-cultural systems approaches to curriculum inquiry are less well known. This chapter examines activity theory as a curriculum inquiry tool and suggests how it may be used at different levels of analysis. It suggests that activity theory can be used to expose and develop points of difficulty between the different elements that together contribute to curriculum development.

In respect of the issue of literacy in the curriculum, Leibowitz sets *chapter ten* within the current focus on graduate attributes and the attention to what are referred to as 'generic skills'. These are skills that students require in order to study at university, as well as – and more typically – the skills or attributes that students require in order to graduate as competent and meaningfully engaged members of society. The particular subset of skills on which the chapter focuses covers approaches to inquiring academic literacy, broadly understood as encompassing writing and reading, digital literacy, and information literacy. This chapter argues for the significance of a 'new literacy studies approach' and traces the implications of this approach for curriculum inquiry and design.

The university curriculum as institutional transformation is an issue addressed by Hay and Marais in *chapter eleven*. The key argument here is that transformation at higher education institutions are not prioritised unless institutional planners and practitioners conceptualise such programmes and initiatives as falling within or adding value to institutional imperatives. The authors argue that higher education institutions will therefore have to rely on fundamental changes within the institution as a whole, and not on a superficial restructuring in an attempt to accommodate political and social demands. They point out how transformation processes at higher education institutions in South Africa have challenged traditional approaches to education and how inquiring the curriculum is increasingly challenging the fundamental assumptions upon which academic staff conceptualise and construct their curricula.

As the only non-South African contributor, Grant shifts the attention in *chapter twelve* to the fact that not much has been written about 'curriculum' in supervised research education. But as evidenced by the now ubiquitous master's and doctoral student profiles there is a curriculum – and in more than one sense. Most obviously, there is the formal body or bodies of knowledge that must be explored and critically engaged with. Grant points to the range of more or less hidden – or intelligible – processes that mould the research student into a recognisable scholar/researcher/advanced professional. There is the expectation, at least at doctoral level, that the student will produce an original insight or finding, in other words redefine the existing boundaries of curriculum. Problematically, however, curriculum is always shadowed by a productive tension between ignorance and knowledge and in the context of research education, under certain circumstances, this tension may become overbearing for

either supervisor or student or both. Curriculum is also indubitably political – certain forms of knowledge and subjectivity are hegemonic and others are excluded. In post-colonial countries such as South Africa and New Zealand, there are significant challenges to the dominant Western curriculum from students who do not identify with the knowledges and subjectivities produced there and who seek supervisors to support them in producing other kinds of knowledges and selves. Here Grant clearly links to the chapter by Botha on the recognition of cultural diversity in the curriculum and suggests some theoretical and practical responses to inquiring dilemmas arising from contested graduate research programmes.

Part Three of the book, *Methods for interrogating, revisioning and implementing curriculum change*, comprises some exemplary contributions on inquiry methods in use. It starts with *chapter thirteen* in which Beylefeld suggests that curriculum inquiry represents a continual quest to change for the better. Action research methods seem to be one way in which the curriculum can be interrogated in order to create links between reflective practice, organisational learning and quality education. The chapter elaborates on a research process that comprised three action research cycles in the analysis and development of a general skills development module in medical education, with a strong emphasis on assessment and curriculum change. It ends with a reflective account of a thoughtful struggle towards curriculum transformation. Similarly, in *chapter fourteen* Wood offers an equally interesting discussion of curriculum enquiry through the lens of values-based practitioner self-inquiry. Through an explication of the genre of action research, she shows how the iterative learning of the curriculum maker, through processes of scholarly self-inquiry, is used to hold him-/herself accountable for the improvement of both curriculum content and pedagogical practice. She introduces the idea of how the creation of personalised living theories helps to minimise the gap between theory and practice. The notion of values as living standards of judgement is elucidated, demonstrating how practitioners (in, for instance, a teacher education curriculum) can utilise them to ensure that explicit epistemological and ontological principles are embodied in curriculum inquiry and implementation.

Chapter fifteen describes the use of the Delphi method to inquire into how the contents of a curriculum in health sciences could be determined in a participative way. Stefan builds her example around a number of questions such as: How is the health education curriculum developed? What is the value of consulting the actual beneficiaries of the curriculum in order to ensure its continued relevance for medical practice? What does such a study reveal about the adequacy of the curriculum in equipping the beneficiaries for practice? What was learned from an experiment about the ways to optimise the use of Delphi for this kind of application? In the end she points out that such a method of inquiry can add much value to the way in which a curriculum is investigated, reconceptualised and implemented.

Costandius, in *chapter sixteen*, describes curriculum inquiry in a Visual Communication Design module in which she used a case study design to investigate a project called

'Citizenship'. She applies complexity theory as a lens to investigate the methodology and processes followed – in this case in an attempt to better understand curriculum complexity. Complexity evolves not only because of a large number of curriculum elements, but because of the relationship between these elements in the curriculum. She describes the characteristics of a complex system such as the Visual Communication Design curriculum to examine the case study methodology used for the Citizenship project, to see how that enhanced the understanding of the process and the context in which the case study was conducted. Using complexity theory in combination with the case study methodology and its impact on the Visual Communication Design curriculum as an example are illustrated.

In *chapter seventeen* Koen refers to curriculum as a 'plan of action' that organises learning student activities. The question of accountability features prominently in her attempt to make the curriculum more responsive and successful. The methodology in this case comprised a small-scale classroom research approach in a Life Skills course in a faculty of education towards curriculum renewal. The reported research stresses the importance of inquiring students' perceptions and experiences of the curriculum; it suggests a theoretical framework whereby small-scale curriculum research might be useful and practical.

Grounded theory methodology (GTM) has been termed a systematic, inductive, and comparative approach for conducting inquiry for the purpose of constructing theory. This approach differs from more conventional modes of inquiry in which the researcher chooses a theoretical framework for a study, formulates hypotheses and tests them. It also differs from 'armchair' or 'desktop' theorising or research that aims to provide descriptive accounts of the subject matter. In *chapter eighteen* Smith-Tolken argues that grounded theory methodology is conducive to curriculum inquiry, because the latter is a process and there is an interaction of actors, which fits GTM well, but it also gives impetus to theorising about the curriculum in a scholarly manner. Drawing on her PhD studies, she demonstrates this by drawing on a study of seven experiential learning modules that included engagement with non-academic communities external to the university.

In *chapter nineteen* Madiba presents curriculum mapping (CM) as a well-documented inquiry process, but points out that the rich conversations that have to be part of such a process might be lost in the tediousness and scope of the work to be covered. However, advances in learning technologies provide new avenues from which curricula can be explored. For example, using a web-based system for curriculum mapping can offer a number possibilities and features to enable curriculum analysis. A system of this nature has to be built – not as a technical tool, but informed by institutional curriculum development agendas that are well thought through, as well as by recognised curriculum principles.

In the *final chapter* of the book, Bester reports on a curriculum review and design research project at a university of technology. The project used a strengths-based

approach namely Appreciative Inquiry, which unleashes a culture of creative and constructive engagement that encourages the development of collaborative learning communities in the institution. As a transformative process based on social constructivism as theoretical framework, it moves away from the deficit-based thinking of 'what is wrong with the curriculum and how do we fix it?' by aligning systems and practices with the institution's generative and creative core. The chapter outlines some of the challenges and tensions related to the recently adopted Higher Education Qualifications Framework (HEQF) in South Africa, revising curricula at universities of technology and exploring how Appreciative Inquiry can be used as a change agent in curriculum restructuring and design.

CONCLUSION

Curriculum inquiry in higher education in South Africa is a field within higher educational studies that addresses distinct and important issues, challenges and methodologies related to higher education curricula. These elements tend to transcend the various areas of educational inquiry as they impact upon the design, implementation and evaluation of educational programmes – particularly in universities. They also tend to be holistic and trans-disciplinary, concerned with the interrelationships between various disciplines and significant to epistemological, ontological and methodological issues. Furthermore, curriculum inquirers increasingly tend to investigate the relationship between curriculum, educational practices and the relationship between higher education programmes and the contours of the society and culture in which higher education institutions are located. As few books have been written on curriculum inquiry in higher education and fewer on higher education inquiry in South Africa in particular, this volume will be valuable to both curriculum researchers and academic staff. We also trust that the project was a timely endeavour – particularly during rapid and constant change and transformation in South Africa where academics need to make hard decisions involving sensitivity towards both scholarly and societal concerns.

CURRICULUM INQUIRY IN SOUTH AFRICAN HIGHER EDUCATION

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PART ONE

REVITALISING CURRICULUM INQUIRY
– PERSPECTIVES OF RESEARCHERS

1

INQUIRING THE CURRICULUM IN HIGHER EDUCATION

A LIMITED (SOUTH AFRICAN) PERSPECTIVE

Eli Bitzer

INTRODUCTION

This chapter attempts to explore, in a limited way, the concept of curriculum inquiry and to position its applications within the field of higher education studies and research. Obviously, curriculum inquiry is a particular form of educational research addressing different kinds of educational research questions employed, *inter alia*, to solve pressing educational problems, formulate policies and develop or redevelop programmes and courses. Unfortunately, however, higher education curriculum inquiry is not always performed by educational experts. In fact, curriculum inquiry is mostly attempted by educational practitioners or educational leaders and managers who wish to address a particular curriculum issue in their programmes or courses or solve a particular institutional or systemic problem. As in most research, addressing particular curriculum questions necessitates sound processes and methods of inquiry. This chapter briefly touches on this latter issue, although some of the chapters further in this book will illustrate the point much more clearly. The chapter also attempts to provide some historical or developmental background to curriculum inquiry, including a few glimpses of a vast and relatively uncharted terrain to which the remaining chapters of this book might contribute.

Worldwide, including in South Africa, relevant literature indicates that higher education (HE) curricula have become sites for significant clashes of epistemologies, values and educational priorities. Some see these 'clashes' as threatening, which might result in situations that are arguably more serious than those of financing, organising and governing higher education (Bridges 2000; Griffin 1997; Scott 2008). Others appear to see them mainly as forms of 'incoherence' that can be addressed through appropriate supervisory and regulatory structures (Barnett 1997; Harvey & Knight 1996). What stands out, however, is that higher education curriculum researchers and developers are faced with both practical and theoretical questions as to what selection of knowledge should be represented in higher education programmes and courses and how knowledge might be constructed, facilitated, mediated and learnt.

In turn, this raises questions as to how knowledge production and distribution should be organised (both institutionally and from the perspective of organising units such as academic departments, faculties or schools) so as to provide most effectively the research, teaching and learning that institutional and programmatic structures can offer and support (Bridges 2000). These are questions that pose opportunities for debate to those who want to engage with them and influence their outcomes. Unlike the school curriculum, which has been almost entirely entrusted to politicians, the university curriculum remains (with the exception of programmes and courses carrying, for example, professional accreditation) self-determined at the departmental, faculty, programmatic and institutional level. However, some would argue that over-emphasised demands for benchmarking, quality assurance procedures and imposing qualification frameworks, as have been seen in South Africa, pose threats to academic freedom and institutional autonomy (Schubert 2008).

It is against this background the term 'curriculum inquiry' is conceived as the thought, study and interpretation used to understand the intellectual and other journeys that shape the perspectives, dispositions, skills and knowledge by which we as humans learn and live. Inquiring higher education curricula therefore implies differentiated methodologies and paradigmatic lenses in order to consider a multitude of questions that have perplexed educators and curriculum inquirers for many years (Schubert 2008; Short 1991); for example, what is worthwhile to study, and why, where, when, how and for whose benefit? Should curricula cater for local or global needs or both and in what balance? Should higher education curricula be guided by national and professional priorities or those of science, technology and academe? Attempts to answer these apparently simple questions imply that curriculum inquiry is a broad terrain within educational research, undertaken by those who seek to define the field of curriculum studies and conduct studies on curricula. Subsequently, there seems to be no single definition of the term 'curriculum' and therefore no single line of curriculum inquiry (Lewy & Goodlad 1991). For the purpose of this chapter an important question that needs to be considered by researchers and students alike is: How does the terrain of curriculum inquiry fit into the broader field of higher education studies and research?

Several important investigations by Teichler (1996, 2005) suggest typical areas of research in four broad categories or spheres of knowledge in higher education, based mainly on research in the European context (also see Bitzer 2009:386). One of these spheres is 'Knowledge and subject-related aspects' which points to different forms of disciplinarity, academic and professional skills and competences, quality of curricula, relationships among curricula, teaching and learning, and more. In his analysis and synthesis of the field of higher education studies and research, Tight (2003, 2004a, 2004b) provides a thematic classification of research domains that includes eight major themes and sub-themes. The three most prominent themes are Course design, which includes the higher education curriculum, Teaching and learning in higher education which points to how students learn and how teachers teach (thus covering different types of content as well as different configurations of higher education curricula), and

Student experience, referring to the wide range of student learning experiences in higher education.

In the South African context, Bitzer and Wilkinson (2009) identified a typology based on a number of local analyses that is reminiscent of Tight's classification. However, this typology of the field of studies and research in higher education produced two additional themes relevant to South African higher education, namely *Higher education transformation* and *Higher education and socio-cultural links/relationships/responsibilities* [see the list below which is a South African extension of Tight's (2003) classification of broad themes in HE studies and research as proposed by Bitzer and Wilkinson, 2009:394].

1. Teaching and learning
2. Course/curriculum design
3. Student experience
4. Quality
5. System and policy
6. Institutional management
7. Academic work
8. Knowledge
9. *HE transformation in South Africa*
10. *HE and socio-cultural links/relationships/responsibilities*

Both of these emerging themes (i.e. themes 9 and 10, as well as others such as 'Knowledge' and 'Academic work' listed above) have implications for and strongly relate to curriculum inquiry in higher education.¹ An obvious question that might arise is: What has happened and what is currently happening in the field of curriculum inquiry outside of South Africa? In what follows I offer a few glimpses of international literature on curriculum inquiry – primarily that which has been reported since the middle of the previous century and mainly as reported by literature produced in the UK and the USA.

GLIMPSES OF THE NATURE AND CHARACTER OF CURRICULUM INQUIRY IN HIGHER EDUCATION OUTSIDE OF SOUTH AFRICA

If, as Barnett (2009) suggests, the higher education curriculum is understood to be a vehicle that promotes the development of students and is largely built around projects of knowledge. Therefore the issue of how knowledge and student becoming are linked emerges as being extremely important to curriculum researchers. In this sense one

¹ It should be noted that although all the above findings were based on empirical research concerning published work, these typologies do not in any way indicate the current gaps and shortcomings of a research agenda for higher education studies and research in South Africa.

purpose of curriculum inquiry seems to be how curricula can increasingly better serve student learning. But, as I shall indicate further in this chapter, this is not the only (internationally) accepted purpose of curriculum inquiry.

CURRICULUM INQUIRY IN SCHOOLING

A level of education in which curriculum inquiry has received close attention since the mid-1900s is the schooling sector – particularly in the UK and the USA. Obviously, lessons were and are still being learnt from that level of education. For instance, Posner (2004), promoting a continuous process of curriculum analysis, suggests that the development and setting of standards about what it is that students should learn imply some form of consensus. An analytical inquiry approach therefore requires the participation of a range of experts, including academic specialists, practitioners, educational researchers, members of society and employers. But what happens if these ‘experts’ are in disagreement? Sometimes curriculum researchers and teachers then decide to ignore the experts and use common sense, or to follow the ideas of one authority, or to borrow from a number of experts as long as their ideas work (Posner 2004:4). Obviously, each of these options is fraught with inherent dangers and may lead to risky and uncritical curriculum decisions, tunnel vision [also see Schwab (1962) in this regard], eclecticism or merely ‘bags of tricks’.

Earlier proponents of curriculum inquiry in the schooling environment (e.g. Bloom 1956; Bruner 1960; Kerr 1968; Nicholls & Nicholls 1978; Nisbet 1968; Tyler 1971) saw the purpose of systematic and continuous curriculum inquiry as striving to arrive at answers to four basic questions:

1. What should be the aims and objectives of a curriculum?
2. What should be the content and the methods of a curriculum?
3. How should the achievement of curriculum aims and objectives be assessed?
4. What gained experiences can be fed back into a curriculum?

Such a concept of curriculum inquiry implies no starting or end point to the process of curriculum inquiry. Nicholls and Nicholls (1978) claim that as societies and knowledge production change, learning needs change. Therefore curricula need to change continuously, which seems a valid claim – also for higher education curricula.

Similarly, Goodlad’s (1979:46) contribution to perspectives on curriculum inquiry in schooling emphasised a movement *back to basics* whereby he stressed that nothing is more basic for the study of curricula than to determine what people practise or do, good or bad, right or wrong. What he proposed was that curriculum inquiry should not hurry to arrive at generalisations or theory but rather investigate practices and how they support or run counter to adopted theories. While Goodlad acknowledged the importance of curriculum theory, he also quoted Schwab (1970) who castigated curriculum investigators for the abstract and pseudo-scholarly character of much of their research. One of Goodlad’s most useful contributions to curriculum inquiry was

(and probably still is) his outline of what he termed the 'process' and the 'substantive' domains of curriculum inquiry. The model he suggested (Goodlad 1979:68) in this regard serves as good example of how curriculum inquiry could be planned and organised at different levels of education, including higher education.

One of the most sustained contributions towards curriculum inquiry is the writings of AV Kelly, who had been publishing on the topic for almost 40 years. Although most of this author's work was located in the schooling environment, many lessons were on offer for inquiring the higher education curriculum. In earlier days Kelly's work was frequently quoted by authors writing on higher education curricula. Kelly's writings reflect different eras in the development of society in the UK and Wales in particular, but in my view the contributions on the role of knowledge in the curriculum stand out as quite useful. For instance, in the fifth edition of *The curriculum: theory and practice* (Kelly 2004) a chapter is devoted to knowledge and the curriculum. Three main points emerged:

1. There are clear linkages between theories of knowledge and views of society.
2. There are implications of these linkages for curriculum planning, policies and practices.
3. There are particular implications imbedded in these linkages for education in a democratic society.

These points closely link to the work of Beyer and Apple (1998:5-6) who foregrounded a number of important issues that confront the serious curriculum inquirer:

- *Epistemological*: What should count as knowledge? What should count as knowing? Is the division into cognitive, affective and psycho-motor knowing too reductionist and do we need a broader view on knowledge as a process?
- *Political*: Who controls the selection and distribution of knowledge and through which institutions?
- *Economic*: How is the control of knowledge linked to the existing and unequal distribution of power, goods and services in society?
- *Ideological*: What knowledge is of most worth? Whose knowledge is it?
- *Technical*: How shall curricular knowledge be made accessible to students?
- *Aesthetic*: How do we link curriculum knowledge to the biography and personal meanings of the student? How do curriculum designers and scholarly teachers act *artfully* in doing this?
- *Ethical*: How are others to be treated responsibly and justly in education? What ideas of moral conduct and community serve as the underpinnings of the ways students and teachers are treated?
- *Historical*: What traditions in the field already exist to help us answer these questions? What other resources do we need to go further?

Obviously, these issues and questions have much to offer for inquiry into higher education curricula and have indeed stimulated debate and discourse for a long time.² Let us turn now to a few glimpses of curriculum in higher education internationally.

CURRICULUM INQUIRY IN HIGHER EDUCATION ABROAD

In the USA, curriculum inquiry has made substantial progress since the middle of the previous century – in many respects more so than in other parts of the world. Popular publications and perspectives dedicated to curriculum planning and inquiry date back to 1949 with Tyler’s *Basic Principles of curriculum and instruction* which highlighted four major areas of curriculum inquiry:

1. What purposes should curricula serve?
2. What learning experiences should be provided to meet these purposes?
3. How is a curriculum to be organised most effectively?
4. How can the outcomes of learning and the attainment of the purposes of the curriculum be best determined?

Taba (1962) furthered Tyler’s questions with the argument that curriculum changes signal institutional changes wherein teachers are active participants by inquiring into the goals and objectives for learning. In particular, Taba’s seven-step model for scrutinising and developing the university curriculum provided a solid platform for further developments in the domain of curriculum inquiry.

In the late 1960s and 1970s Dressel (1968) and Conrad (1978) proposed an increased emphasis on rational inquiry approaches which acknowledged the earlier seminal works but subsequently drew into the equation issues and questions revolving around curriculum decision-making, political pressures and the role of stakeholders in the curriculum process. In addition, Berquist, Gould and Greenberg (1981) proposed eight curriculum models that reflected the undergraduate experience in universities in the USA. These models generated a range of new curriculum questions to be investigated in a differentiated higher education US system according to particular institutional missions and purposes. A typology developed by Berquist *et al* (1981) was drawn upon by other authors (e.g. Conrad & Pratt 1993; Stark & Lattuca 1997) and foregrounded more curricular variables as well as the role of the academic disciplines in curricula. It also appeared that in the 1980s several curriculum researchers (e.g. Bruffee 1993; Tierney 1989) started investigating questions about students as active participants in their learning and assessment experiences.

One publication that sparked much discussion, debate and inquiry into curricula in higher education in the US at the time was Bloom’s (1987) *The closing of the American mind*, which pointed to how higher education had failed democracy and impoverished student learning. Also, the ‘liberal curriculum’ became a constant topic

² Some of these curriculum issues are also reflected in chapters that follow in this book.

for discussion and inquiry in higher education as the proponents of the humanities curriculum continued to exert influence in this regard (for instance, see Bennet 1995; Kerr 1994). Therefore, new perspectives emerged, one being that the curriculum is to be observed as a 'living' entity and not merely a plan of learning events or activities. Questions related to cognitive and social constructivism became much more prominent in writings (e.g. Baxter Magolda 1999; Ropers-Huilman 1998), while student diversity and increases in student participation rates were cited by authors such as Nelson (1996) as major factors in curriculum investigation. These issues, together with rapid increases in knowledge and knowledge production, also brought into play the question of the lifelong learning curriculum and a more holistic view of influences affecting the learning paths of individuals (Claxton 1999; Grimes 1995). Before turning to some particular curriculum issues under inquiry elsewhere the reader might ask about the methods of inquiry used in the studies mentioned.

It seems that the range of methods that were used in curriculum inquiry in the past as well as those that are currently in use is wide. One useful source to consult is the latest *Encyclopedia of Curriculum Studies* (Kridel 2010) which outlines, in alphabetical order, a broad spectrum of these methods of inquiry. A list appears below of some of these methods which can be related to the research referred to above.³ For more details on each of these methods or on the full range as published in *Encyclopedia of Curriculum Studies*, the reader is referred to Kridel (2010), Volume 1.

- Action research
- Biographical studies
- Case studies
- Comparative case studies
- Complementary methods research
- Critical theory research
- Documentary research
- Ethnographic studies
- Grounded theory research
- Hermeneutic inquiry
- Historical research
- Indigenous research
- International research
- Mixed methods research
- Narrative research
- Phenomenological research

³ Some of these methods will also be highlighted by the chapters contained in the latter part of this book.

- Political research
- Quasi-experimental research
- Social context research
- Survey research

A further useful source which does not relate directly to curriculum inquiry in higher education but might be worthwhile to take note of from a methodological perspective is Short's publication, *Forms of Curriculum Inquiry*. Short (1991) outlines a number of methods for curriculum inquiry in the context of schooling and several of the authors in his book offer a number of methodological options to research different types of problems and questions related to curricula. Also, more recently, Pinar (2010:83) has suggested a multi-dimensional, four-quadrant model based on different actors and actions to inquire into curricula. This model can be used in different ways for different purposes ranging from charting the field of curriculum studies to conducting single curriculum inquiry projects.

Following an analysis of the undergraduate curriculum in UK higher education by Squires (1990), Middlehurst and Barnett (1994) contributed an important chapter on the organisation of knowledge and the academic culture. As a most useful example of inquiry into the curriculum question of whether disciplines and subjects in universities in the UK still occupy the heartland of academic life, the chapter analysed the forces and pressures causing fundamental changes in how the disciplines and subject areas were being viewed at the time. In their analysis, Middlehurst and Barnett came to the conclusion that at the end of the previous century the relationship between disciplines, universities and society no longer seemed appropriate due to a number of converging forces which were (and still are) causing fundamental changes to how knowledge is organised within the academic culture. Consequently, since 1994 and not only in the UK, a range of publications appeared which deepened and broadened the argument of inter-, cross- and multidisciplinary approaches to organising knowledge and solving problems within and beyond higher education (Barnett 2000; Brew 2006; Kreber 2009; Rowland 2006).

Another important development in the UK that might have contributed to curriculum inquiry in higher education on a broad front was (and still is) the Higher Education Academy. With a vision of students in UK higher education to enjoy the highest quality learning experience in the world (The Higher Education Academy 2010), the Academy currently supports higher education institutions with 24 subject centres, guidance on educational research, evidence-informed approaches to educational enhancement and sharing and disseminating best educational practices. By working with individual academics, providing access to professional recognition as well as networking and development opportunities and recognising distinctive policy contexts and priorities, the Academy promotes curriculum inquiry of various sorts.

In Australia, professional development and curriculum inquiry have also increasingly received much attention. For example, an area of curriculum inquiry emphasised lately is the question of how learning can, where applicable, best be integrated in workplace contexts. Recently, one volume of *Higher Education and Research and Development* (HERD) in Australia (Vol. 29 No. 25 of 2010) was dedicated to the issue of work-integrated learning addressing emerging interesting and important perspectives such as institutional involvement in workplace learning, work-ready professional graduate attributes, internationalising work-integrated learning, community-based student placement programmes and balancing student learning and commercial outcomes in the workplace. I conclude this section with references to two further curriculum issues that sparked inquiry: the Bologna process in Europe and researching postgraduate curricula.

At the macro policy level the Bologna process in Europe had major implications for national and institutional higher education curricula (Ministry of Science, Technology and Innovation 2005). To some it came as a constraint with the division of higher education studies in three main cycles: the three-year bachelor's, followed by the two-year master's and the three-year doctoral degree respectively. However, Charlier and Croché (2009) point out that reality is much more complex and the implementation of the Bologna agreement calls for interdependent institutions whereas most institutions previously had to comply with their own respective national constraints. The new dispensation calls for a wide range of issues concerning curriculum inquiry and some see potential for stronger interdependence across national borders, including stronger relations and exchange with higher education in Africa (Charlier & Croché 2009:39). This provides new opportunities for curriculum inquiry – both in Europe and Africa – on issues such as curriculum relevance, curriculum quality and curriculum outcomes.

In some respects, the postgraduate curriculum is a topic that has already been well explored. For example, in their overview of the (post)graduate curriculum in higher education in *The Encyclopedia of Higher Education* (Volume 3), Conrad and Millar (1992) take a historical perspective on the postgraduate curriculum and its development from the time when the University of Bologna conferred the first doctoral degree in the 12th century. Since those early days, as the authors aptly point out, postgraduate education has become an important part of higher education in many countries throughout the world – at first through instructional forms and later through instruction and research. Still later, postgraduate education was mainly associated with research. However, it is widely agreed that through the ages postgraduate education, particularly at the master's and doctoral level, has played a prominent role in countries with systems of higher education and significantly contributed to leadership in the scientific, economic, social, educational and political spheres. Moreover, research activity associated with the postgraduate curriculum is a valuable source of new knowledge and innovation in many parts of the world. It therefore appears not to be uncommon that students' and institutions' expectations of postgraduate education change over time.

For instance, to strike a healthy balance between freedom and neglect is a constant challenge (Mackinnon 2004; Manathunga 2005) – both to postgraduate supervisors and students. It is therefore necessary that the level and amount of support provided to postgraduate education be constantly monitored and adjusted (also see the chapter by Grant in this volume). For instance, how supervisors participate in and contribute to development opportunities for postgraduates are important institutional research functions in promoting the quality of supervision practices, as indicated by several studies. It might also be relevant to South African higher education curriculum inquiry.

Let us now turn to curriculum inquiry in higher education in South Africa. As stated earlier, it seems far from easy to provide a full picture of developments in this regard within the confines of a book chapter. The reader therefore has to bear with another few glimpses as allowed by an inspection of relevant literature.

CURRICULUM INQUIRY IN HIGHER EDUCATION: A SOUTH AFRICAN LITERATURE PERSPECTIVE

Quite recently Le Grange (2006) pointed out that inquiry into and debate on curriculum in higher education in South Africa has long been neglected. This viewpoint is confirmed when one tries to find literature on the issue which is, to say the least, rather sparse, incoherent and diverse in nature.

This section points to at least three developments: (1) Literature dealing with curricula in higher education prior to 1994 consisted mainly of questions related to the ‘how’ of curricula; in other words, predominantly technical-rational issues. Of course there were exceptions to this trend. (2) However, from just before the 1990s up to about 2000, literature reflected new higher education policies and some debate and discussion around these new policies and initiatives. Most of these debates and published viewpoints had to do with issues such as how curricula should reflect the new democratic dispensation in the country and how curriculum development could be more responsive towards the new priorities of an emerging democratic state. (3) Related mainly to the period after 2000, debates and inquiry tilted towards how higher education curricula could embrace and reflect the education and development needs of the country and provided a more critical look at the theoretical and philosophical bases of curricula. This post-2000 ‘era of inquiry’ (if one could call it that) was sparked by, amongst other things, a vehement debate around the outcomes-based education (OBE) philosophy. This philosophy (which assumed ideological proportions in South Africa) was not only forced upon the schooling sector, but spilled over into the domain of higher education.

CURRICULUM INQUIRY PRIOR TO THE 1990S

Although it seemed, as I shall shortly point out, that curriculum inquiry was strongly dominated in South Africa by technical-rational views prior to 1994, there were laudable exceptions. An example of one of these exceptions was the very first article that appeared in the *South African Journal of Higher Education* (SAJHE) in 1987.

In this article Alan Behr from the then University of Durban-Westville (reserved for students of Indian origin) pointed towards the chasm that had arisen in South African higher education resulting from the then National Party government's policy of creating separate ethnic universities and learning programmes in the 1960s and 1970s (Extension of the University Education Act or Act 45 of 1959). Although this policy was amended in 1983 (Act 83 of 1983) to make universities more accessible to all groups of students, it created a new problem, namely that of growing numbers of academically disadvantaged students in higher education programmes (Behr 1987:3). Behr also pointed out that the academic boycott of the 1980s had devastating effects on higher education curricula due to the unavailability of open international exchange, literature and debate.

Another exception to a technical-rational approach to curricula was the establishment of the so-called Kenton Education Association. This association was started in 1974 by a group of deans of Education from liberal South African English-language universities, who met at a seaside resort called Kenton-on-Sea in the Eastern Cape (hence the name). The Kenton Education Association is an interdisciplinary community comprising academics and postgraduate students engaged in research in education. The Association committed itself to promoting research through a culture of vigorous interdisciplinary exploration, debate, and critique of contemporary research in education in South Africa, which included issues of higher education curricula. These debates focused on conceptual or methodological aspects of research, and research findings. They also explored the significance of these for addressing problems in South African education. In a sense the aim was to 'trouble' taken-for-granted ways of thinking about and addressing educational issues and problems to promote rigorous research and development of education in South Africa. Some of these debates were published in the *Kenton Journal of Education* (<http://www.kea.org.za/ojs/>) which had its first edition in 1975.

A further exception to the technical-rational approach was a substantial body of literature associated with educational transformation, epistemological access and direct student support. This literature was published from 1988 to 1994 in the *South African Journal of Higher Education, Academic Development* (a journal no longer in existence), conference proceedings of the South African Association of Academic Development (SAAAD – the precursor of the Higher Education Learning and Teaching Association of Southern Africa) and various in-house publications, most notably the *AD Dialogues* series published by the University of the Western Cape. This body of literature was broad-ranging in nature, recording best practice examples of how to 'fix the student', how to facilitate curriculum change across an institution, and debates on what constitutes educational disadvantage

If the majority of books and journal articles published on higher education curricula before 1994 are taken into account, it seems clear that much was written and published on how to change and improve higher education curricula without necessarily

questioning and investigating the educational theories and debates that underpinned these curricula. One could say that a pragmatic approach, linked to technical-rational views of curriculum development and largely imported from the UK, the USA and the Netherlands, dominated curriculum inquiry in some higher education institutions. A few examples might suffice.

Articles published in the first 10 volumes of the *South African Journal of Higher Education* for the period 1987 to 1997 was indexed by Adey (1997), and for this period a total of 44 articles related to curriculum in higher education were published by this journal. On inspection of these articles it appears that a large number of them (I would say at least seventy to eighty per cent) dealt with *how to* issues rather than *why* issues. The use of input-output matrices in evaluating professional curricula (Samson 1987), criteria and procedures for the evaluation of computer-assisted learning programmes (Boshoff 1989) and the relationship between higher education and economic development in the so-called homelands of South Africa (Tötemeyer 1989) was typical of the articles that were published. Many of these articles were based on survey designs of the empirical-analytical type. In addition, a number of manuals or handbooks for university lecturers (mainly at the then so-called historically Afrikaans universities) were published to assist them with constructing curricula and improving the facilitation of these curricula. Examples are Strydom and Helm (1981), Calitz, Du Plessis and Steyn (1982) and Du Plessis (1993). Although quite comprehensive in nature, these publications rested heavily on technical-rational models and authors such as Tyler (1971), Davies (1976), Zais (1976), Wheeler (1979) and Krüger (1980). These publications were complemented by in-house university teaching and learning bulletins and newsletters at different institutions. The broader curriculum picture was, however, heavily shaded by utilitarian motives or what Clegg (2007:1) refers to as “what works”.

CURRICULUM INQUIRY DURING THE 1990S AND BEYOND

During the first part of the 1990s the turmoil and euphoria of the 1994 democratic elections in South Africa prevailed. This was also demonstrated in the higher education arena where a plethora of new policy documents emerged and fierce policy debates ensued until 2000 and beyond. Table 1 briefly depicts the situation which also involved discussions and developments regarding the higher education curriculum as a newly discovered field of investigation.

TABLE 1.1 A summary of key higher education policy and publication initiatives at a national level (1990-2009) related to curricula in higher education

Date	Initiative or process
1990	The National Education Coordinating Committee (NECC) started HE policy proposals in view of the African National Congress (ANC) gaining political power.
1992-1994	Policy proposals were put forward by the Union of Democratic University Staff Associations (UDUSA) and the Education Policy Unit (EPU) at the University of the Western Cape. Publication of the National Education Policy Initiative (NEPI) report: Post-secondary Education.
1995-1996	The South African Qualifications Authority Act (No. 58 of 1995) was promulgated. The National Commission on Higher Education (NCHE) was established. The report: A framework for transformation (1996) was published.
1997	The Green Paper and White Paper 3: A programme for the transformation of higher education were published. The Bill on Higher Education was released and the Higher Education Act, No. 101 of 1997 adopted. All HE qualifications were required to be recorded and registered on the National Qualifications Framework (NQF). Extensive curriculum restructuring took place.
1998	The Council on Higher Education (CHE) and its standing committee, the Higher Education Quality Committee (HEQC) were established. Ministry initiatives around private HE commenced. HE qualifications had to be accredited on the NQF and the work of the HEQC started.
1999	The National Students Financial Aid Scheme (NASFAS) was established. Initiatives commenced to launch the accreditation process of 50 MBA programmes at 24 institutions.
2000	The CHE report was passed: Towards a new higher education landscape: Meeting the equity, quality and social development imperatives of South Africa in the twenty-first century. A group was appointed to report on language policy for HE, including the use of Afrikaans as language of instruction. The technikon qualifications quality assurance body (SERTEC) and the Quality Promotion Unit (QPU) were evaluated by the CHE.
2001	The National Working Group (NGW) released the report: The restructuring of the higher education system in South Africa. Cabinet approved ministry proposals to reduce 36 public institutions to 23 through mergers and incorporations. All teachers' training colleges were to be incorporated into universities' faculties of education. It was proposed that all technikons become universities of technology through mergers and transformational measures. Initiatives commenced to review co-operative governance in HE.
2002	The ministry requested the Council on Higher Education (CHE) to investigate distance education provision in South Africa. The CHE released a research report: Governance in South African higher education and a policy report: Promoting good governance in South African higher education.
2003	The CHE provided advice to the ministry on an interdependent National Qualifications Framework (NQF), also including higher education.
2004	The CHE produced several publications, including South African higher education in the first decade of democracy, Higher Education Qualifications Framework (HEQF – draft for discussion), Higher education and social transformation – a South African case study, as well as a publication on curriculum responsiveness: Curriculum responsiveness: case studies in higher education (2004).

Date	Initiative or process
2005-2007	The CHE produced several publications and advisory documents, including <i>Towards a framework for quality promotion and capacity development in education</i> (2005), <i>Academic freedom, institutional autonomy and public accountability in higher education</i> (2006), <i>Higher education monitor: A case for improving teaching and learning in South African higher education</i> (2007) and the HEQC evaluative study of institutional audits in 2006 (2007). Higher Education South Africa (HESA) released a report on knowledge creation: <i>Spirit of inquiry: knowledge creation in South African higher education</i> (2006).
2008	The Higher Education Amendment Bill was published to make provision for the implementation of the HEQF in HE institutions in South Africa.
2009	The CHE published a report on Postgraduate studies in South Africa: A statistical profile.

Adapted from Cloete *et al* 2004: *National policy and a regional response in South African higher education* and published in Bitzer (2009).⁴

The aim here is not to highlight the debates and inquiries that followed the policy changes in higher education curricula. For such a purpose the reader is referred to the work of Ensor (2002) and others who did some analytical work on South African higher education policies that emerged in the 1990s and their implementation. Apart from the debates around the notions of Mode 1 – Mode 2 knowledge production (Gibbons 1998; Gibbons, Limoges, Nowotny, Schwartzman, Scott & Trow 1994), the ANC's (1994) policy framework for education and training, the White Paper on Education and Training (RSA DoE 1995) as well as the continuing debate about the Bernsteinian influence in pre- and post-apartheid higher education curricula (Bernstein 1990, 1993, 1994), several South African publications saw the light of day. Examples include reports on inquiries regarding knowledge identity and curriculum transformation (Cloete, Muller, Makgoba & Ekong 1997), the issue of a whole qualifications and/or unit standardised approach (Cooke & Naidoo 1998), the possible end of the higher education binary divide between universities and technikons (Genis 1999; Gevers 1998) and the possibility of introducing an outcomes-based education philosophy across the education spectrum in South Africa (Christie 1999).

CURRICULUM INQUIRY – PARTICULARLY SINCE 2000

It appears that South African literature regarding curriculum formation, development and inquiry proliferated after the late 1990s and early 2000s. One of the first extensive documents to be published on curriculum restructuring in a post-apartheid South Africa was contributed by Breier (2001). In this document, she and her co-authors outlined issues such as international and local curriculum debates, the implications of curriculum change for administrative, financial and academic systems in higher education (Ogude 2001), programme planning (Ensor 2001) and qualifications

⁴ One of the latest additions to the list is the 2011 publication of the CHE on the HEQC reviews of programmes in Faculties of Education across South Africa.

reform (Kraak & Mahomed 2001). A number of key themes and associated questions were explored (see Table 1.2) which provided, particularly at the institutional and programmatic levels, key points of departure and debate related to curriculum inquiry.

TABLE 1.2 International concerns in South African higher education curricula and associated questions (adapted from Breier 2001:2)

International concerns	Associated curriculum issues or sample questions
Globalisation, massification and internationalisation	<ul style="list-style-type: none"> ▪ What kind of curriculum would prepare students for participating in a global economy? ▪ How should curricula accommodate the effects of massification and changes in student populations? ▪ How should quality in the curriculum be ensured while many students are from educationally deprived backgrounds?
Responsiveness	<ul style="list-style-type: none"> ▪ To what extent should the curriculum be responsive to the needs of the economy, the development of society at large and communities in particular?
Different forms of knowledge	<ul style="list-style-type: none"> ▪ How should curricula reflect knowledge traditionally regarded as non-academic, non-professional, local or indigenous? ▪ How should curricula address the challenge of knowledge production where knowledge is increasingly being produced in the site of application rather than in an institution?
Disciplinary	<ul style="list-style-type: none"> ▪ Should the curriculum promote traditional disciplines, inter-disciplinary or trans-disciplinary?
Lifelong learning	<ul style="list-style-type: none"> ▪ Continuous retraining and re-skilling seem to be increasingly needed in view of changing employment and other needs. How would curricula address these needs?
Graduateness	<ul style="list-style-type: none"> ▪ What skills and forms of knowledge do employers and society value? How generic and how specific should the development of these skills be?
Citizenship	<ul style="list-style-type: none"> ▪ What kind of citizen is envisaged and how can curricula be instrumental in this regard? How compatible is global citizenship with national identity formation and what is the role of higher education curricula in this regard?
Freedom and accountability	<ul style="list-style-type: none"> ▪ How should curricula reflect the intricate relationship between institutional autonomy, academic freedom and public accountability?
Distance education	<ul style="list-style-type: none"> ▪ What are the implications for higher education in view of increasingly popular distance modes of delivery? What can and what cannot be promoted in a distance education curriculum?
Information and communication technology	<ul style="list-style-type: none"> ▪ How can higher education curricula and in particular the facilitation of learning be promoted by emerging technologies? What potential is there for applications in a country such as South Africa with its limited resources and great distances?

Inquiry into the curricula of different fields of study and work also proliferated after 2000, particularly following the merging of several higher education institutions in South Africa and the end of the university-technikon divide. A brief survey of articles published in the *South African Journal of Higher Education* as well as conference and other presentations show investigations and the rethinking of curricula in different

fields, at different institutions and at different levels of the curriculum. For instance, the curriculum in comprehensive universities (Blunt 2005), in Marketing (Bevan-Dye & Venter 2008), in Business Management Studies (Erasmus & Loedolff 2005), Science Education (Le Grange 2008), History (Shay 2009), Africanisation and contextualisation of the curriculum (Botha 2007; Lockett 2010), community engagement (Bender 2008), the implications of higher education qualification frameworks (Higgs & Keevy 2009; Van Koller 2010), and many more.

One area of inquiry that seems to be a continuous and pressing one in developing countries such as South Africa is the alignment of the school curriculum, the further education and training (FET) curriculum and the higher education curriculum. Although these sectors all have different aims and goals, they have one thing in common and that is to provide graduates to support an emerging democracy and a growing economy within a sustainable financial framework. This area of curriculum inquiry has received some, but not sufficient, attention due to its complexities and scope. One study that stands out for me was sponsored by the Human Sciences Research Council on knowledge, curriculum and qualifications in the FET curriculum (Young & Gamble 2006). Although the study focuses mainly on the FET curriculum in meeting the needs of economic growth and employment, it also touches on the senior schooling curriculum and higher education, indicating not only the differences but also the links in the complex maze of qualifications and skills in the quest to meet current and new employment opportunities – one of the most pressing problems not only in South Africa but also in many other parts of the world. Taking a critical stance, this publication shows that as societies change, education changes. It also draws attention to what happens if the features of education that are distinctive to it are neglected or given a secondary place to the commodification of knowledge (Young & Gamble 2006:5).

Another important contribution towards curriculum inquiry in higher education in South Africa points towards contesting discourses in curriculum restructuring. Some authors (such as Ensor 2004) have indicated how efforts to reshape higher education curricula reflected the responses of universities to the series of policy initiatives after the mid-1990s. Pressures of globalisation and local challenges to reconstruction provided a context where two prominent discourses, a credit-transfer-and-accumulation discourse and a disciplinary discourse, shaped education policy making and the responses of science and humanities at universities. These contributions link well with Muller's exploration of coherence in the curriculum (Muller 2009) and Le Grange's (2006) observation that although universities enjoy much freedom and self-regulation in curricula, there is some danger when curriculum becomes the private domain of the individual department or academic. Le Grange (2006:191) advocates for a greater sensitivity towards the needs of epistemological access to diverse bodies of students, adhering to public accountability and debate about the implications of programme approaches to curricula in higher education.

From the perspective of the curriculum as an institution in higher education, Jansen (2009) argues that more inquiry and action is needed in South African universities towards non-racial and non-dominant (by one group) curricula. He believes (2009:123) that to transform the lived curriculum in a post-apartheid South Africa and to change what students and academics believe about race, identity and knowledge is vastly challenging. According to Jansen constant inquiry and intervention are needed to unravel and change the misconceptions and ignorance of the sensitivities surrounding stereotypes in and beyond the curriculum. Similarly, Botha (2009) points to the complexities that offer rich opportunities for inquiry in the South African higher education curriculum. She established six interrelated clusters of curriculum issues that are in need of inquiry and suggests a matrix of ‘enmeshed’ curriculum issues relevant to the South African higher education environment (Botha 2009:178).

One may well ask: How much of what has been discussed above holds implications for curriculum inquiry in higher education South Africa at present and what possible lessons are to be learnt? The next section may provide a few pointers in this regard.

IMPLICATIONS FOR CURRICULUM INQUIRY IN SOUTH AFRICAN HIGHER EDUCATION⁵

The aim of this chapter is obviously not to unravel the concept ‘the curriculum’ or to provide an overview of how to inquire into higher education curricula. Rather, it provides a view on a limited number of studies and perspectives that have emerged from curriculum inquiry studies internationally, but mainly in South Africa. This chapter thus serves as a brief background for the rest of the book in which a number of cases from various disciplines or fields of study are highlighted as examples of projects inquiring the curriculum in higher education. What then can be learnt from what was said in this chapter on curriculum inquiry in schooling, in higher education contexts abroad and in those in South Africa?

Curriculum inquiry in schooling has reached a considerable level of sophistication. The point is proven by an array of publications on curriculum inquiry that have appeared in the last decade or so. But the question remains what higher education curriculum researchers can learn from these inquiries. At least five of these ‘lessons’ might be more or less useful:

- Systematic and continuous inquiry seems essential to keep curricula relevant and effective. Such inquiry should incorporate multiple inputs and perspectives, not only those from individual teachers or subject specialists.
- Basic questions of inquiry posed by earlier curriculum researchers still remain important and relevant within new social and educational contexts and at different levels of curriculum inquiry. Therefore these questions need to be revisited from time to time.

⁵ The reader might be able to trace some of these implications to the chapters that follow later in this book.

- Societal change implies curriculum change. This seems to be true not only for curricula in schooling but also for curricula in higher education – particularly in the human and social sciences and the professional fields, but also in the application of knowledge and skills in the pure or hard sciences.
- Informed use of educational theories seems useful for testing and contesting curriculum practices. Curriculum researchers therefore do not only need to be aware of these theories but should actually use and apply them in their inquiries.
- Those who are serious about effective curricula and their continuous development need to take cognisance of the epistemological, ontological, political, economic, ideological, technical, aesthetic, ethical and historical contexts of curricula to enhance curriculum renewal and improvement.

Curriculum inquiry in higher education abroad equally presents a number of useful lessons to those curriculum researchers in South African universities who have to deal with the realities of transformation and change. The following points seem to be important:

- Curriculum inquiry initially focused on individual courses or subjects but gradually expanded to include other levels of decision making in institutional and national contexts – particularly at the undergraduate level of studies.
- The role of the disciplines and curriculum content featured prominently at first, but increasingly the student as learner, active student participation in learning, the involvement of students in the enacted curriculum (e.g. through problem-based and work-integrated learning) as well as inter-, cross-, multi- and trans-disciplinary curricula have increasingly come into focus.
- The liberal curriculum and the generic attributes it represents remain an important curriculum issue for inquiry. Also, the massification of higher education, student diversity, lifelong learning and workplace-integrated learning has posed challenges to curricula and curriculum inquiry.
- At the level of the methodology of curriculum inquiry a wide range of methods reportedly were and are still being used. Small-scale case-study types of inquiry have been extended by more large-scale survey types of inquiry, many at a national level.
- In some countries such as the UK national initiatives to promote critical inquiry into curricula were established and teaching and learning networks as well as grants for educational inquiry provided support to enhance best practices and innovation. A number of other countries (such as Australia and New Zealand) followed suit.
- The Bologna process in Europe provided both challenges and opportunities for curriculum renewal in many countries. It also created opportunities for countries and institutions in Africa and South Africa in particular for co-operative and comparative curriculum inquiry.

- Inquiry into postgraduate curricula became prominent as postgraduate qualifications increasingly started playing an important role in knowledge-based economies.

Evidence from South Africa points to a number of important developments concerning documented curriculum inquiry in higher education – particularly since the 1970s. Three identifiable periods emerged: namely a period before the election of the first democratic government in the country, the one directly following that, and the period after around 2000. A few highlights from these periods of inquiry might suffice.

Curriculum inquiry in higher education in the period before 1990 appears to have been dominated by technical-rational and pragmatic approaches and practices. Obviously, the racially based policies of apartheid, which manifested in separate higher education systems and institutions in South Africa during the time, caused much room for contestation, debate and inquiry into the legitimacy and feasibility of both these policies and the curricula that accompanied them. When the restrictions prohibiting universities from allowing students from all races into their learning programmes were partially lifted, another problem, namely that of huge numbers of educationally unprepared and under-prepared students, was imminent. This caused universities to take additional and even extraordinary measures towards student academic development, student learning support and adapting or amending curricula (see Scott 2009). Groupings of mostly ‘liberal’ higher educationists established forums to debate and inquire into current curricula, but there seems to be little documented evidence of theoretical inquiry – particularly concerning inquiry methodology. Published records mainly reflected ‘how to’ curriculum issues rather than issues concerning the ‘why’ of curricula. This was mainly true for the Afrikaans language university campuses where high quality materials and manuals were developed to guide and support academics in enhancing their curricula and their teaching practices.

The period covering the early 1990s saw a highly politicised curriculum inquiry environment in South Africa which preceded the 1994 elections. After the first democratically elected government took office in 1994, a series of higher education policy initiatives, documents and debates materialised while outcomes-based education (OBE) became the ideological driving force or philosophy which represented change and transformation in higher education curricula. This was accompanied by the mode 1-mode 2 knowledge debates, questions about the place and role of indigenous knowledge, the whole qualifications or unit standards debate (heavily influenced by trade unions and the skills training sector) and the end of the binary (university-technikon) divide. There is documented evidence that these debates and issues caused inquiry into higher education curricula, but less so than one would have expected.

Since 2000 there has been evidence of a proliferation of literature on curriculum inquiry, mainly sparked by the introduction of the National Qualifications Framework (NQF) towards the end of the previous decade and its higher education extension, the Higher Education Qualifications Framework (HEQF). Issues such as globalisation, knowledge-based economies, massification, curriculum responsiveness to national and

local needs, education for democracy, information and communication technologies, institutional mergers, quality assurance measures (programme reviews and institutional quality audits), public accountability and academic freedom all played their part in more recent curriculum inquiry.

What are the implications of all of this information for those researchers and academics who are interested in curriculum research and inquiry in higher education in South Africa? Three possible implications might be highlighted. *Firstly*, it seems important to take notice of what has been done and published on curriculum inquiry – not only in South African higher education, but also in higher education internationally and in the schooling sector. Why is this important? In my opinion the reason is two-fold: to avoid ‘re-inventing the wheel’ and to learn from others’ research and experience. Sometimes curriculum researchers and lecturers are of the opinion that the questions and problems they or their curricula face are unique. Mostly this seems not to be true as their contexts and circumstances might be unique, but much can be learnt – both about the nature of the problem and the methodology followed – in order to inquire local curriculum challenges. Therefore, those who inquire into curricula should be well read in the field. Sadly, however, some academics and lecturers are under the impression that they know how to inquire into curricula merely by teaching a subject or a course for years or decades.

Secondly, co-operation and networking in curriculum inquiry seems essential. This rings true not only for working together and creating networks within subjects and fields of learning but also for co-operating across disciplines, professional fields and expertise. Inquiring into curricula or elements of curricula in inter- or trans-disciplinary teams makes much sense as new ideas on appropriate methodologies, lines of inquiry and curriculum issues usually emerge from such co-operative teams. If I may illustrate with one example: Recently an exercise was initiated at my university to inquire into a new learning assessment policy for the institution. The team that attempted the inquiry came from at least eight different disciplinary backgrounds in the university and involved teaching and learning support staff. During this project it became abundantly clear that the multiplicity of views, experiences and tacit knowledge about assessment hugely enriched the process and generated new angles on assessment not written up in educational literature. Most participants completed the project with much richer perspectives on the issue of learning assessment and made several changes to their own assessment practices accordingly.

Thirdly, the development of an agenda for curriculum inquiry also seems important. Some excellent work has been done in various aspects of curriculum inquiry in higher education in South Africa, but it seems that priority setting and focus are currently lacking. With an apparent emphasis on higher education curriculum responsiveness to national and international development goals, increases in student participation rates and pressures on institutions for student access, under-prepared entrants, economic challenges (almost worldwide), alignment issues (in view of the implementation of the

HEQF), curriculum quality and other issues, there seems to be an overwhelming range of issues for research and inquiry. It may be time for some form of prioritisation of these issues as not all of them can be addressed simultaneously – particularly at the institutional and programmatic levels of inquiry. Priorities will of course differ from the national to the institutional to the programmatic or the single course, but setting an agenda for research and inquiry remains important – not only to prevent duplication and overload but also to allocate resources for inquiry wisely.

In conclusion: In their book *Engaging the curriculum in higher education* Barnett and Coate (2005:159) refer to the ‘scholarship of the curriculum’ which is different from the scholarship of teaching and learning. To them the scholarship of the curriculum implies, for one, a more reflective inclination towards curriculum matters: ‘[T]here can be no side-stepping engagement in deliberate, incisive and collective reflection on curriculum matters if well-founded but imaginative offerings are to be forthcoming’ (Barnett & Coate 2005:159). It is in this spirit that curriculum inquiry seems to be an essential rather than an optional scholarly activity in higher education – one to which this book aims to make some contribution.

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2

CURRICULUM TYPES AND MODELS

A THEORETICAL INQUIRY

Gawie du Toit

INTRODUCTION

There is no common understanding of what the concept 'curriculum' entails. Academics at higher education institutions view, interpret and implement curricula within the same field in different ways. Reports on the evaluation of programmes at higher education institutions in South Africa over the past few years confirm this statement (CHE 2010). Master's degrees in business administration and education as well as initial teacher education qualifications were some of the programmes evaluated at the majority of higher education institutions by the quality assurance body (HEQC) of the Council on Higher Education (CHE). Explicit levels of progression linked to theoretical depth, articulation between modules and overlapping content, the adherence of the programmes to a shared vision and the alignment of models were some of the typical areas of concern emanating from the evaluation of a number of these programmes. A point of concern in the programmes in education, for example, was the obsession with compliance with the existing policy directives at the time.

Thoughts on and theory of education, also at higher education institutions, are concerned with curriculum as the centre of all education (Pinar 2003:14). Therefore, the challenge is to deal with the concept of curriculum as viewed differently by educationists and non-educationists while the curriculum serves as impetus for the interaction between three actors, namely the lecturer, the student and the learning content.

For the 'average' university academic, answers to the following questions usually inform the teaching of any subject or module:

- WHAT can be taught and learned?
- WHY should we teach and learn in a particular way?
- HOW can we teach and learn?

Answers to these questions depend of course on the type of curriculum being implemented, but equally they will also influence the functions and roles of the role players in the teaching and learning situation at any higher education institution.

Lecturers at higher education institutions are subject specialists and not necessarily educationists, or more specifically, curriculum science specialists. It is however expected that lecturers design and implement a curriculum at least on the micro-level. Lecturers to a certain extent have to become curriculum agents that can act autonomously and interdependently in the teaching learning situation, which *inter alia* implies that they must give meaning to the concept 'curriculum'.

In the sections to follow, the concept 'curriculum', the sources that influence curriculum development and various curriculum models developed over the last century in the field of curriculum studies are explored.

CURRICULUM AS CONCEPT

Ross (2000:8) views 'curriculum' simply as what needs to be learned or, phrased differently, what is worth knowing. The word 'curriculum' originates from Latin and can be translated as 'racetrack' or 'a course to be run'. In the educational context, 'racetrack' can be interpreted as a course of study (Ross 2000:8) or, metaphorically, as a journey of learning (Parkey & Hass 2000:15). *Currere*, the verb form of *curriculum* (the noun), emphasises the experience of the journey in an educational context (Pinar 2010:177). Curriculum "deals with what is worth experiencing, doing, and being" (Parkey & Hass 2000:15). Prior to 1998, the term 'syllabus' was used more often in South Africa among educators and non-educators, but this changed in 1998 with the implementation of Curriculum 2005 in South African schools. Through the ages, educators and non-educators used the terms 'syllabus' and 'curriculum' interchangeably. In the 1800s, curriculum was even equated with graded textbooks (Parkey & Hass 2000:15). According to Eash (1991b:71), "syllabi by definition are the organizing documents in areas of instruction". Syllabi contain a list of contents, outcomes and/or objectives and, in some instances, also explain how assessment must take place. They serve as blueprints for textbook writers and lecturers at higher education institutions when designing study guides. Textbooks and/or study guides provide the means whereby the teaching-learning situation is conceptually organised so that "it [content] can be transmitted in a more efficient, consistent manner by many teachers [lecturers]" (Eash 1991b:71). The notion that knowledge cannot be transmitted requires further debate and is addressed at a later stage in this chapter.

Various authors (Beane, Toepfer & Alessi 1986:30-33; Graham-Jolly 2009:247-250) have different opinions as to what exactly the concept 'curriculum' entails. There is no agreement as to an explicit definition for 'curriculum', but it is interesting to note that there is little difference between the various definitions (Brealt & Marshall 2010:179). Definitions are not rigid and can change because the meaning captured in the definition will depend on the person, the place and the time of formulation (Davis & Hersh 1980:8). For example, noticeable trends in the definitions of the concept 'curriculum' by educationists and non-educationists provide insight into interesting movements in this field over the past 11 decades. Glatthorn, Boschee and Whitehead

(2006:4-5) classify these definitions as either prescriptive or descriptive. Prescriptive definitions portray how things ought to be, whereas descriptive definitions portray how the curriculum should materialise in action. Beane *et al* (1986:30-33) classify these definitions into four broad categories, each determined by whether the focus is on products, processes, intended learning (*what* and *how* are separated) or the experiences of the students (things do not always happen as planned).

When these four categories are projected as a continuum with the 'product' category on the right end of the continuum, and the 'experience of the students' category on the left end of the continuum, it provides an indication of whether a 'curriculum' is more 'concrete' (i.e. more institution-centred) or more 'abstract' (i.e. more student-centred).

These two ends of the continuum therefore represent two opposing views (Scott 2008:31-40). The one end concerns what is intended or planned, while the other end concerns what in reality materialises in practice. Grundy (1987, cited in Graham-Jolly 2009:250) likewise acknowledges the different ways in which 'curriculum' is defined. He differentiates between three forms of curricula: he describes *curriculum as product*, in other words as a document used to teach. This is also known as the official or intended curriculum and is considered a concrete presentation of the curriculum. *Curriculum as practice* refers to what is happening in the classroom. This is known as the experienced or implemented curriculum. When the curriculum is constructed by those involved, it is known as the 'curriculum as praxis' or as the 'curriculum as social construct'. The latter is an extension of the experienced or implemented curriculum. It attaches meaning to the experienced curriculum and is more abstract. The way in which educationists and non-educationists perceive the form of a curriculum will determine its design.

The fact that 'curriculum' is viewed differently by various groups implies that there are different ways in which a curriculum can be designed. According to Doll (1974:66-82), there are three major representative curriculum designs. First, curricula can be designed around subjects, disciplines or broad fields. The clustering of two or more subjects is an example of a broad-field curriculum design. Natural sciences, where chemistry, physics, botany and zoology are clustered, are one such example. Secondly, a curriculum can be designed around students. Student-centred and experience-centred curricula are examples of these types of curricula. Thirdly, a curriculum can be designed around social problems such as poverty, social justice, health-related issues or real-life situations.

To emerge as lifelong learners, students at higher education institutions should become more accountable for their own learning. This naturally leads towards a curriculum designed around the student. However, the importance and value of knowledge (subject content knowledge) and social issues (such as social justice, environmental and health-related issues) impacting on the curriculum cannot be ignored and should be strengthened, meaning that the boundaries between the three mentioned designs should not be clear-cut.

EPISTEMOLOGY AND THE CURRICULUM

Higher education institutions are concerned with different forms of knowledge 'production' and it is necessary in the context of this book to elaborate on knowledge and its impact on the curriculum.

Plato, Descartes, Kant and Hegel offered various versions of rationalist epistemology, but they shared the same certainty, namely that true knowledge can only be obtained through rational mind independent of senses. True knowledge, according to them, is God-given and is independent of the knower. Knowledge is thus objective and independent of time, societies, cultures or human beings. They supported an absolutist theory of knowledge. John Lock, the founder of the epistemology of empiricism, objected to this view on human knowledge, stating that one cannot be dogmatic about knowledge. According to him, knowledge can only come into one's mind through one's senses, although the evidence of one's senses might be unreliable. Further resistance to this view on human knowledge came from the pragmatist movement of John Dewey, who views knowledge as hypothetical and therefore subject to constant change, modification and evolution. He highlighted the importance of experiences in the building of knowledge with the result that knowledge is personal and subjective. Dewey valued scientific knowledge on condition that hypotheses are formulated and adapted according to publicly agreed-on criteria. According to Dewey, such knowledge has no permanent status but is objective in so far as it is at least accepted by everyone who agreed on the criteria and provides intellectual freedom. In his influential work *Knowledge and control*, Young (1971) points out that knowledge is socially constructed and thus not God-given. Muijs and Reynolds agree that knowledge is not viewed as a truth that needs to be discovered but rather as something that needs to be socially constructed by every person within him-/herself (2005:61-62). Those involved in the process must be active participants in the construction of their own knowledge and not merely passive receivers of knowledge. If they are not involved in the construction of own meaning, the interpretations and reinterpretations of own experiences and the opportunity to develop own values are lost. Socially constructed knowledge can be negative in that it can be misused to promote an ideology, leading to indoctrination instead of education (Kelly 1999:26-29,31-32,38).

The acquisition of disciplinary knowledge and the acknowledgement of everyday knowledge and its place in curriculum development are thus knowledge 'forces' that must be taken into account in the process of curriculum development at higher education institutions (Scott 2008:79-81). These types of knowledge should not be viewed as monoliths, but rather as being horizontally and vertically integrated.

Deeper knowledge increases students' ability both to act as responsible citizens and to add value to society, the economy and political life. This type of knowledge contributes to the empowerment of students to solve complex, high-priority problems encountered in the real-world situations of work, society and life (UNESCO 2008:7).

Knowledge creation is a human activity that empowers students to become lifelong learners contributing to a curriculum that goes beyond mere disciplinary knowledge. The specific skills required to create new knowledge in the process of developing a curriculum are problem solving, articulation, collaboration, experimentation and critical thinking (UNESCO 2008:8).

Knowledge – the WHAT that needs to be learned or discovered – is central to the curriculum and thus needs to be considered during the planning of a curriculum. Effective learning is the answer to the HOW question regarding learning. De Corte (1996:35-37) provides a definition for effective learning based on international research on learning. In this definition, effective learning is considered a constructive, cumulative, goal-directed, situated, collaborative, self-regulated and individually different process. This process can be expected to result in knowledge building when students make meaning of the curriculum.

OTHER SOURCES INFLUENCING CURRICULUM DESIGN

Olivia (1988, cited in Carl 2009:22-23) refers to disciplines such as philosophy, sociology, history, subject areas and psychology as well as technology as sources that might influence the process of curriculum design. From the perspectives of these 'disciplines', the curriculum inquirer will thus engage with relevant concepts, applicable methods and research methodologies (Ornstein & Hunkins 1998:14-15). These sources exert their influence on the design of a curriculum, as borne out by examples such as Galileo Galilei (Flewelling & Higginson 2003:130), who already stated in the 16th century: "You cannot teach a man anything; you can only help him find it within himself".

In the 19th century, Jules Henri Poincare (1854-1912) mentioned the following about the learning of science (Flewelling & Higginson 2003:41): "Science is built up with facts, as a house is with stones. But a collection of facts is no more a science than a heap of stones is a house". It is evident that such views will impact on curriculum development and more specifically on the design of a curriculum.

In the previous section on epistemology and the curriculum, it was evident that philosophers' views influence the way in which we conceive knowledge and in which it impacts on a curriculum. The philosophy underpinning outcomes-based education (OBE) in South Africa is constructivism (Du Toit & Du Toit 2004:11-12). Piaget (1951, 1971) and Vygotsky (see Kozulin 1990) were two of the forerunners who, as radical and social constructivists (without claiming to be such), contributed towards establishing constructivism as a force that influences curriculum development at both school and higher education institutions. The power of philosophy, more specifically in education, lies in its ability to empower educationists to deliver social critique and to lead the way in transforming the curriculum.

UNESCO (2008:1) highlights the importance of technology and, in particular, information technology as a force that influences the curriculum, as well as the challenges it poses to teachers and lecturers in an increasingly complex, information-rich and knowledge-based society. Information technology should not only be used as a tool but rather as a methodology – a means to an end. In the teaching and learning situation the emphasis must be on learning with the aid of computers as heuristic devices and not on learning how to use computers.

Various psychological forces influence the curriculum. Students learn in different ways because their learning styles differ. Lecturers need to address this reality when developing the curriculum at the micro-level. The way in which lecturers and curriculum developers understand the concept 'learning' will also influence both the design of learning activities, learning content and the construction of a learning environment. Some lecturers view learning as a process involving stimulus and response. Others view effective learning as a process whereby students build knowledge through meaning making (see the definition of effective learning by De Corte). The works of Piaget, Vygotsky, Bruner, Ausabel and Gagné and the impact of their ideas on curriculum construction and development are well known (Du Toit 2010:2).

The importance of education to achieve political goals is well known. Plato was most probably the first to recognise that educational provision is the key to achieving the kind of society he wished to see established (Kelly 1999:13). Bernstein (1987, cited in Ensor & Galant n.d.:287) formulates the role of social forces as a question: "How does the outside become the inside and does the inside reveal itself and shape the outside?" This implies that the social world needs to structure consciousness in the curriculum and that consciousness structured in this way needs, in turn, to structure the social world (Ensor & Galant n.d.:288).

The lecturer as curriculum inquirer should view the design of the curriculum from a holistic and a multi-disciplinary perspective. The interrelatedness of various disciplines and their influence on the curriculum as well as the influence of the broader social context of a higher education institution must be acknowledged in directing the curriculum-design process.

DIFFERENT KINDS OF CURRICULA

The 20th century saw a continuous battle between the so-called traditionalist and progressivist educationists. The suggested black-and-white distinction between the traditionalists and the progressivists as portrayed in Table 2.1 does not really exist, but gives an idea of what the groups stood for. These typical characteristics are portrayed in the discussions of the various kinds or models of curriculum of those who were instrumental in their designs.

TABLE 2.1 Traditionalists versus progressivists (adapted from Doll 1974:16)

Traditionalists	Progressivists
What is learned may be worthy because it is inherently good.	What is learned may be worthy because it is good for something.
Subject matter is important in itself.	Subject matter is important as a medium for teaching skills, intellectual processes, attitudes and appreciations.
Subject matter should mainly be taught for deferred use.	Subject matter should mainly be taught for immediate use.
Because all people are basically the same, they should have basically the same curriculum.	Because individuals differ markedly from each other, they require widely differentiated curricula.
Curricula are differentiated to cultivate intellectual elite.	Curricula are differentiated to develop the uniqueness of each human being regardless of his/her lack of promise and potential.
Accept the world as it is and then conform to it.	Believe that they can remake the world into an environment that approaches ideal conditions.

The contributions of various curriculum theorists were mainly aimed at curriculum development in schooling, but educationists, non-educationists and curriculum planners at higher education institutions have used these models or variations of them in their curriculum planning, as portrayed in Carl (2009:70-75) and Geyser (2004:148-154).

The following curriculum theorists were instrumental in the design of models that paved the way for curriculum practitioners and researchers who advocated and/or supported the traditionalist or the progressivist view on curriculum design.

John Franklin Bobbitt

In 1918 Bobbitt published *The curriculum*, the first and most cited book on curriculum in the educational history of the USA. The technique of designing a curriculum along scientific lines (Bobbitt 2004:10) was adapted from the work done by Taylor in an industrial context, which was published in his book *Principles of scientific management* (1911). Taylor followed an input-output approach, which is reflected in the *Scientific method in curriculum-making* designed by Bobbitt. The cultural and utility perspectives of this method compete for control over schooling (and also higher education). From the perspective of culture, Bobbitt argues that the goal of education should be to cultivate citizens to enable them to make a living. The emphasis should be on the cultivation of reason and thus the development of the student’s intellectual powers. This is in line with the school of thought of the perennialists (Doll 1974:18). The utility value or practical outcome of schooling (and higher education) is of little concern to educationists with this perspective. From the perspective of utility, the goal of education is to prepare students to be productive in civil life by performing daily activities, enabling them to work effectively and co-operatively with fellow citizens in everyday life. This is

to a certain extent in line with the school of thought of the realists, who believe that the truth is a given that must be discovered (Null 2010).

The *Scientific method in curriculum-making* consists of five steps:

- The daily activities of an efficient adult are studied to determine all (e.g. knowledge, problem-solving skills and ambitions) that is needed to be efficient in that specific work environment.
- The collected information is prioritised into objectives.
- Students are identified (by means of tests, etc.) on the basis of ability and interest to prepare them for roles which they will most probably fulfil on graduation.
- The curriculum is differentiated for each group of students in order to train them for their roles in adult life.
- Curriculum specialists are to study students once they have become adults to assess whether or not the curriculum they completed prepared them efficiently for their daily activities (Null 2010:188-189).

These five steps are clear indications of Bobbitt's belief that students need to be prepared for adult life by means of scientific techniques. Examples of curricula planned at higher education institutions according to these scientific steps can, for example, be the professional degrees for chartered accountants and medical doctors. The professional bodies of these professions are active (often prescriptive) in the process of curriculum development. Kliebard (2004:38) echoes this purpose of education when he refers to Bobbitt's statement in *How to make a curriculum* (1924:8): "Education is primarily for adult life, Its fundamental responsibility is to prepare for the fifty years of adulthood, not for the twenty years of childhood and youth".

Bobbitt changed his view on education two years later when he wrote in the *Twenty-sixth yearbook of the National Society for the Study of Education* that "[i]n a very true sense, life cannot be 'prepared for.' It can only be lived" (1926:43, cited in Kliebard 2004:39).

The scientific way in Bobbitt's curriculum planning is viewed as part of the traditionalist's custom. These curricula are designed top down around subjects and/or disciplines and students have hardly any or no role to play in the design of the curriculum.

Ralph Tyler

The curriculum model developed by Tyler, also known as the *Tyler rationale*, is probably the most popular model used in the planning and designing of curricula at various education levels. This may be due to the simplicity of the model, which makes it easy for both expert and novice to use on micro-level. Content is a crucial element in curriculum planning and, according to Kelly (1999:14), questions need to be asked as to how the chosen content relates to other dimensions. Curricula consist of five widely agreed-upon dimensions or components: a framework of assumptions about the

learner and society; aims and objectives; content or subject matter with its selection, scope and sequence; modes of transaction, for example methodology and learning environments; and evaluation (Eash 1991a:67). This is in line with Tyler's view on dimensions in curriculum planning, namely objectives, content or subject matter, methods or procedures, and evaluation. His four questions focus on these dimensions:

- What educational purposes should the school seek to attain?
- What educational experiences can be provided that are likely to attain these purposes?
- How can these educational experiences be effectively organised?
- How can we determine whether these purposes are being attained?

Methods used to study these questions will differ depending on the level of education and the nature of the institution (Wolf 1991:411). The first step will be to formulate temporary purposes depending on information obtained from curriculum sources such as the students, contemporary society and subject specialists. Precise tentative purposes are formulated based on information obtained from these sources and are screened through philosophical and psychological education lenses prior to the formulation of precise purposes. It is useful to note that the tentative purposes were not screened through a social lens, but it can be argued that the tentative purposes are mainly the result of the social nature of the curriculum forces.

Tyler's model is classified as an aims-objective model that is product-driven. It is a means-end model where the end is first decided upon before the means to reach the end is determined. There is a logic sequence in this model that assumes a linear view on means and ends. In addition, content is considered central to the curriculum and concerns the effective delivery of the content (Kelly 1999:14-15; Posner 2010:254). This is the view of most critics of the *Tyler rationale*. Kliebard (1970, cited in Wolf 1991:412) criticises the way in which the objectives are formulated and the narrow approach Tyler seemingly suggests in the evaluation of these objectives. The restriction of evaluation to programme objectives deprives one from judging whether the programme might serve greater interests. Wolf (1991:411-412) has a different perspective of the Tyler rationale. He refers to objectives, learning experiences and evaluation (defined as assessment in the South African context) as the three interrelated and dynamic components in the model, as indicated by the two-directional arrows in Figure 2.1.

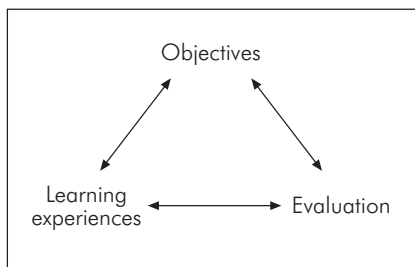


FIGURE 2.1 Representation of the Tyler rationale

Objectives → learning experiences guide the process of selection and/or creation of learning experiences. Objectives → evaluation designates the evaluation procedures and instruments that need to be developed. Evaluation → objectives show that evaluation procedures can be applied to determine the extent to which the set objectives were obtained. This can also provide information to adapt or eliminate objectives. Learning experiences → evaluation suggests that learning experiences can provide examples for the development of evaluation tasks. Learning experiences → objectives might suggest new objectives based on the outcome of the interaction between teachers (lecturers), students and the learning material, which might lead to a new education programme.

Two strong notions that emerge from this perspective on the Tyler rationale are that of an essential standard against which the success of the programme can be measured and of evaluation as an integral part of teaching and learning (Wolf 1991:412).

The models of both Bobbitt and Tyler are criticised as being ‘adult-centred’ and it is argued that social convention dictates how the institution will form the students. Tyler’s model is objective-driven, implying that the process is not sufficiently valued. Cognitive learning is over-emphasised at the cost of social learning. Tyler’s model is also functional regarding the training of students, but raises the question whether it is suitable at higher education level to educate students holistically in an interdisciplinary manner.

Hilda Taba

Four concepts are at the core of curriculum models by curriculum theorists such as Tyler (1949), Walker (1971), Gagné (1977), Krüger and Müller (1988) and Marsh (1997): objectives, content or subject matter, methods or procedures, and evaluation. This is also true in the case of Taba’s curriculum model (Taba 1932, 1962; Jacobs 2004:48). Her model for curriculum design consists of five steps (Carl 2009:70):

- Design of experimental instructional-learning units
- Testing of experimental instructional-learning units
- Review and consolidation
- Development of a frame of reference (cohesion and rationale)
- Establishment and dissemination of units

These concepts also capture the eight-step sequence in the design step of Taba's model. Her model is an expansion of Tyler's model. In the first step she conducts a needs analysis and includes two steps where content is selected and organised and a final step of control for balance and sequence. The models of Tyler and others mentioned earlier are top-down and technical. Taba's model differs in that she follows a bottom-up approach by working inductively with the teachers (lecturers) in the design of the curriculum (Stern 2010:837). She envisages that the curriculum will support students to become critical thinkers who search for meaning in the world in which they live. Her objectives are therefore integrated by addressing not only in-depth content but also skills and attitude. She focuses on 'intergroup education' (known currently as multi-cultural education) and supports the cross-discipline design of the curriculum. The value of action research and the importance of evaluation in the educational process are high on her agenda. She also values both qualitative and quantitative measurement in the evaluation process. The design of a curriculum in gender studies in the humanities and social sciences, for example, lends itself towards this type of curriculum model. Stern (2010:838) echoes the value of Taba's contribution as education theorist in the field of curriculum: "Taba is about balance-integrating curriculum to create critical thinkers and problem solvers by using conceptual content and inductive pedagogies to prepare students for an active, fulfilling life".

Taba is also tagged as a traditionalist or functionalist but her inductive, cross-disciplinary, action research-driven curriculum model in diverse settings implies a shift towards the progressivists. Students do not play a central role in her model of curriculum development, as such role is performed mainly by experts. The value of her work in the field of curriculum is that it challenges lecturers to research and improve on their own practices.

John Dewey

In the early 1900s, John Dewey, a philosopher in education, gave direction and led the discussion of what a curriculum should be, emphasising the importance of the role of education in contributing towards a democratic society (Dewey 2004:17-18, 22-23):

Education is the key to making democracy work since in order to intelligently participate in social and political life, one has to be informed and educated to be able to be a good citizen and competent actor in democratic life.

The relationship between school and society, more specifically a democratic society, is fundamental to his theories of curriculum. He views democracy as the means for diverse groups in society to establish common interests, to interact freely and to succeed in achieving a mutual adaptation (Glatthorn *et al* 2006:39). Dewey also advocates the experimental approach in curriculum development, emphasising that one learns by doing (Carl 1995:51-52; Dewey 2004:19-22). He cautions against activities chosen only on the basis that learners perceive these as interesting and relevant. Learning experiences designed around these types of activities are, in his words, "mis-educative" (Glatthorn *et al* 2006:39).

He was a leader of progressivism in education, and more specifically the progressive curriculum, at the beginning of the 20th century, and emphasised the importance of the educational context and the environmental support of learners' educational experiences (Flewelling & Higginson 2003:123). Also, Jean Piaget, in his emphasis on the importance of constructing own knowledge, was instrumental in introducing some of Dewey's ideas into curriculum inquiry in the 20th century (Flewelling & Higginson 2003:124).

In *My pedagogic creed* Dewey (2004:19) describes education as "a process of living and not a preparation for future living". He therefore differs from Bobbitt's original view on education, namely that the purpose of education is to prepare for adult life. Dewey emphasises the importance of both sociological and psychological learning as two aspects of the education process. Both are of equal importance and the one is thus not inferior to the other (Dewey 2004:17, 18):

I believe that the individual who is to be educated is a social individual, and that society is an organic union of individuals. If we eliminate the social factor ... we are left only with an abstraction; if we eliminate the individual factor from society, we are left only with an inert and lifeless mass.

Dewey critiques the subject-centred curriculum designs for the rote-minded methods employed in transmitting traditional subject matter to learners. He believes that the curriculum must be designed by taking the learners and their experiences into account. In an experiential, inquiry-orientated curriculum the learners are actively involved by continuously investigating and constructing meaning to better understand their world. Goal and process is thus one and the same thing (Dewey 2004:21). His vision for education is that it must be holistic, interdisciplinary and developmental (Kelly 2010:107).

The value of Dewey's view on curriculum from a higher education perspective is that it is holistic, transdisciplinary, values both social and cognitive learning and emphasises the importance of student participation in the process of curriculum design.

Lawrence Stenhouse

Stenhouse was instrumental in reshaping curriculum as a field of study in the 1970s. His 1975 book *An introduction to curriculum research and development* is widely regarded as one of the key foundational texts in this field (Cho & Trent 2010:814). The conceptualisation of "curriculum as a means to an end" and the inclusion of standards and authentic assessment can, according to Cho and Trent (2010:814), be traced to the work of Lawrence Stenhouse.

Stenhouse is not in favour of behavioural objectives as cornerstone in the development of a curriculum (Scott 2008:31-32). He believes that knowledge related to and underpinned in the disciplines should be developed by means of inquiry-based learning and that this should drive curriculum development. It is necessary to understand Stenhouse's notion of 'inquiry'. He is not supportive of a didactic form of teaching

where the student is the passive receiver of knowledge developed in the disciplines. It must be stressed that the definition of didactics in the Germanic countries is more comprehensive than merely the transmission of knowledge, as stated by Stenhouse. The end product of this process is the outcome of assessment, which will determine whether the students have obtained this knowledge. Stenhouse argues that the didactic way of teaching is mainly concerned with the triviality of the discipline and does not offer students the means to think in the disciplines. On the contrary, according to Stenhouse (1975:38, cited in Scott 2008:33), this is what inquiry-based teaching can offer: “What is characteristic of the advocacy of inquiry-based teaching in this sense is the assertion that one can *think* in a discipline at elementary as well as advanced levels of study.”

An inquiry-based method of delivery necessitates a particular view of the teacher and/or lecturer, to whom Stenhouse refers as the “extended professional” (1975:144, cited in Scott 2008:39-40):

In short, the outstanding characteristic of the extended professional is a capacity for autonomous professional self-development through systematic self-study, through the study of the work of teachers and through the testing of ideas by classroom research procedures.

Extended professionals should together reconstruct educational standards that will hold all students accountable for building knowledge by constructing meaning as they interpret text (Cho & Trent 2010:814). In addition, Stenhouse believes in a hermeneutic process of understanding in inquiry-based education, where meaning exists in the process of interpretation and not in the object of knowledge (Scott 2008:38). The process is central in Stenhouse’s curriculum planning model (1975) (Kelly 1999:15). He therefore opts that process objectives replace behavioural objectives and that other means be found in order to translate aims into practice (Scott 2008:36-37). Stenhouse highlights conditions that need to be met if this process is to work. Teachers must own the knowledge that they develop by actively researching their practice. This must continuously reflect on their own practice, which should enable them to effect change in the teaching and learning situation. In addition, teachers must reflect on the process in order to identify and solve problems they encounter in their classrooms. Stenhouse views learning as a community issue. Teachers therefore need to externalise by observing and studying other teachers’ practice, enabling them to provide alternative views on their own practice (Scott 2008:40).

A great deal may be gained in higher education from Stenhouse’s theory of curriculum. The process-based curriculum concerns understanding and not grading or assessment as product. Stenhouse highlights the interdependence of learning as well as the importance of setting standards and authentic assessment. He advocates the significance of inquiry learning as a means to get students actively involved in knowledge building. Like Taba, he also stresses the importance of action research to improve own practice as well as the essence of learning from colleagues.

Paulo Freire

Paulo Freire offers a critical perspective of curriculum planning with his *Pedagogy of the oppressed* (Freire 1970, 2004). He describes the technical production perspective of curriculum planning as “banking education” (Posner 2009:258), where the teacher regulates the way the student should conceive the world. Those with more specialised knowledge thus decide on behalf of those with less specialised knowledge. As an alternative, Freire describes the emancipatory approach. In this approach one needs to critique one’s own concrete position, in other words one needs to discern, reflect and judge one’s own naïve consciousness and what is needed to move from naïve to critical consciousness. Students must realise that reality is a process and not a rigid given (Steinberg 2010:383). With problem posing as method in this approach, teachers and students are co-investigators by means of dialogue. Dialogue materialises through words that function in two dimensions, namely reflection and action (Freire 2004:125). Freire believes that teacher and student will be empowered to discriminate critically the way in which they view and live in the world. Students are co-operatively and by means of dialogue involved in the formulation of generative themes to be used in the curriculum. Curriculum planning is not technical, but rather political, ideological and bottom-up. There is no end product such as a learning outcome that a learner must demonstrate, but rather a “critical reflection and action upon reality” (Posner 2009:258-259).

It should be the purpose of higher education to educate students who demonstrate a critical disposition regarding their role in teaching and learning as well as towards the broader social reality in which they will function. The absence of learning outcomes poses a challenge to assessment and the setting of standards.

In my view the essence of the contributions of the curriculum theorists discussed above regarding the type of curriculum can be summarised and portrayed on a continuum as in Figure 2.2.

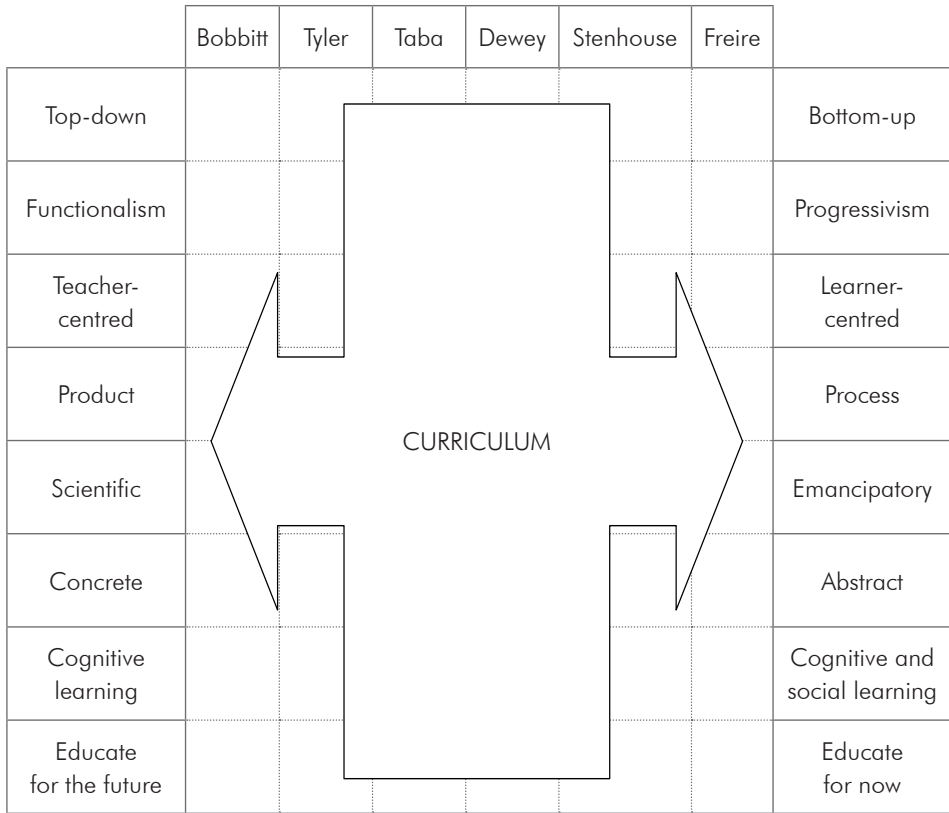


FIGURE 2.2 Continuum – curriculum theorists’ contributions to curriculum design

In the next section the value of these curriculum theorists and their effect on curriculum design in higher education are probed.

CURRICULUM DESIGN AND HIGHER EDUCATION

Geyser (2004:151) refers to four core principles, namely situation analysis, outcomes, teaching and learning, and assessment that guide the design of an Outcomes-based Education (OBE) curriculum at higher education level. These principles form part of the majority of the curriculum models discussed above.

Constructivism is the underlying philosophy of OBE, which became very popular as education strategy in the past few decades. The basic principle underlying the constructivist philosophy is that knowledge is constructed by students based on their experience rather than being perceived by their senses (Muijs & Reynolds 2005:61). This view supports the theories of both Dewey and Stenhouse. An OBE curriculum is thus designed around the student, but it is evident from readings on OBE (Du Toit & Du Toit 2004; Spady 1994a, 1994b; Spady & Marshall 1991) that components of the

other two curriculum designs (i.e. around subjects and around problems) are captured in the outcomes and thus infused into this design. An OBE curriculum will thus be placed more towards the right end of the continuum portrayed in Figure 2.2.

Biggs and Tang (2007:50) highlight the value of ‘constructive alignment’ in outcome-based teaching and learning. The two driving principles in this process are the constructivist theory and the alignment between the intended outcomes, learning activities and assessment. Stefanie (2009:48) views ‘constructive alignment’ as central to curriculum design because it provides for scholarly dialogue on teaching, learning and assessment strategies. This engagement provides the opportunity to ensure that the outcomes are achievable, of the required standard and aligned with the learning activities and assessment.

Figure 2.3 presents a modification by Stefani (2009:53) of the original logical model for curriculum design, also known as the Cowan-model. Learning outcomes is at the centre of this model and should be defined explicitly as supporting students to reflect on their own learning. The learning activity (in verb form), the content (the object), the specification of the context as well as the standard that the student should attain must form part of the learning outcome (Biggs & Tang 2007:53).

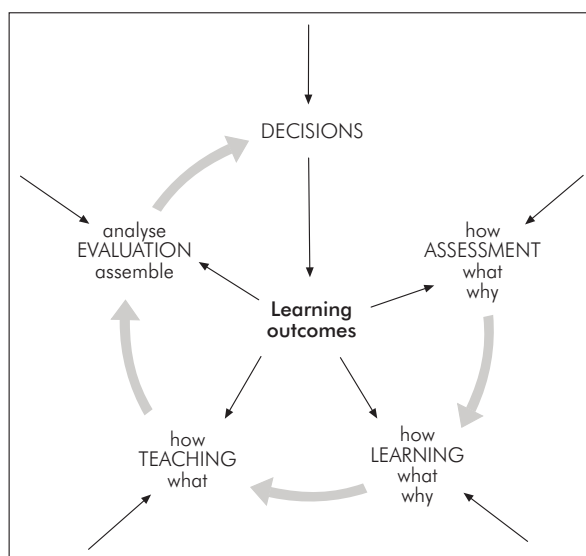


FIGURE 2.3 A modified logical model of curriculum development (adapted from Stefani 2009)

The arrows pointing inwards signify the inputs from various sources and/or stakeholders, such as peers, the institution, the community, employers, government and professional bodies. The questions – How? What? Why? – compel lecturers to question and reflect on their classroom practice. Answers to these questions will *inter alia* inform lecturers’

curriculum choices and their approaches to facilitation of student learning. The arrows pointing clockwise and those arrows pointing outwards from the learning outcomes indicate the alignment of outcomes, assessment, teaching and learning. The evaluation of the curriculum-design process informs the decisions to be made in order to improve and/or adapt the learning outcomes.

It seems important that higher education institutions should aim at educating students who demonstrate a critical disposition regarding the students' role in learning processes as well as the broader social reality in which they will function once they enter the workplace. The absence of learning outcomes therefore clearly poses a challenge to assessment and the setting of standards.

CONCLUSION

As emphasised earlier in this chapter, one obtrusive problem in higher education institutions is that curriculum inquirers are sometimes caught up in homogenised subject- and/or discipline-centred curricula and pedagogy and thus neglect to address and interpret challenging social, technological, knowledge and philosophical influences on the curriculum. Being a student is a complex social activity that entails more than the acquisition of subject/discipline knowledge. The education of students should therefore preferably be holistic, where students are instrumental in the process of knowledge building, the obtainment of high-order skills and the development of values so that they can participate as responsible and contributing citizens in society, the economy and political life. Education at higher education institutions should thus not merely constitute training programmes that will enable students to fulfil a specific role in life. In conceptualising the curriculum, restrictive theories – such as reductive theories – should be eschewed in favour of examining the entire field of curriculum development and education in its totality. The various curriculum types and models discussed earlier have both strong and weak points, as was pointed out in the discussion of each. The danger lies in absolutism and ideologies that could easily lead to indoctrination instead of education. Posner (2009:260) views curriculum techniques and curriculum conscience as two necessary and complementary elements in curriculum development. A lecturer or academic without the knowledge and skills needed for inquiring into and (re)developing a curriculum might be considered incompetent. Similarly, a curriculum inquirer who does not understand and who does not deal with the underlying assumptions in curriculum discussions is ungrounded, does not have a curriculum conscience and can only act as a technician in curriculum planning and the revision of curricula. Lecturers involved in curriculum planning therefore need to demonstrate a critical disposition when engaging with significant ontological, epistemological and methodological issues in trying to find answers to important curriculum questions. They need to be creative and imaginative in designing programmes and other curricula for their specific fields. This might only be possible if they have sufficient background knowledge of curriculum types and models that deepen their curricular knowledge and inform their educational practices.

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3

CHALLENGES FOR CURRICULUM IN A CONTEMPORARY SOUTH AFRICA

Lesley le Grange

INTRODUCTION

Curriculum is a complex and contested terrain that is variously described based on disparate philosophical lenses through which it is viewed. When the word 'curriculum' is used it is generally understood as applying to school education, that is to the prescribed learning programmes of schools or more broadly to the learning opportunities provided to school learners, rather than to higher education. A survey of articles published in prominent curriculum journals such as the *Journal of Curriculum Studies* and *Curriculum Inquiry*, for instance, shows that very little space is given to articles on higher education. Ironically, the term was first used in relation to higher education rather than school education. It was Ramus, the sixteenth-century master at the University of Paris, who first worked on 'methodising' knowledge and teaching. It was in Ramus's work, a taxonomy of knowledge, the *Professio Regia* (1576), which was published posthumously, that the word 'curriculum' first appears, referring to "a sequential course of study" (for more detail see Doll 2002:31). According to Doll (2002:31), Ramus's idea of a general codification of knowledge (curriculum) flourished among universities that were strongly influenced by Calvinism, ostensibly because of their affinity for discipline, order and control.

Our understanding of curriculum has (r)evolved since early conceptions of the 16th century. For the purpose of our discussion here, curriculum simply refers to what knowledge is included or excluded in university learning and teaching courses and how the knowledge is organised in academic institutions. My specific interest in this chapter is to point out that curriculum is a neglected area in higher education discourses generally and in South Africa more specifically, and further to suggest some challenges for curriculum in view of competing global and local forces influencing what might be taught and learned in higher education institutions in South Africa.

CURRICULUM A NEGLECTED TERRAIN IN HIGHER EDUCATION

In South Africa we have witnessed considerable change in the higher education landscape in recent years. Changes include: a proliferation of policies (focusing mainly on governance, funding, quality assurance and student access and success); the merging of institutions; institutional changes (such as the introduction of strategic plans, quality assurance directorates and equity plans). Presumably all of these are important, but the changes have not incorporated much talk about the implications for curriculum and perhaps more importantly, curriculum has not featured as a central concern of higher education transformation in South Africa. This situation does not seem to be peculiar to South Africa. As Barnett and Coate (2005:1) write:

All around the world, higher education is expanding rapidly, governments are mounting inquiries into higher education, more institutions are involved in running courses of study and more money is being spent on higher education, not least by students themselves. Higher education is ever more important to increasing numbers of people. And yet, despite the growth and debate, there is very little talk about the curriculum. What students should be experiencing is barely a topic for debate. What the building blocks of their courses might be and how they should be put together are even more absent from the general discussion. The very idea of curriculum is pretty well missing altogether.

In the United Kingdom, the term 'curriculum' does not appear in the index of the report of the UK's most recent National Committee of Inquiry into Higher Education (NCIHE 1997) nor is there any mention of curriculum in the UK's White Paper on the Future of Higher Education of 2003 (see Barnett & Coate 2005:13).

In South Africa the situation is a little better because the term 'curriculum' is at least alluded to in some of the important policy documents on higher education. For example, Education White Paper 3: A Programme for the Transformation of Higher Education (RSA DoE 1997) does make reference to curriculum in places. I shall refer to three instances where the term is mentioned. It is mentioned under the headings 'Institutional autonomy', 'Public accountability' and 'Programme-based approach'. According to the White Paper the principle of institutional autonomy refers to a high degree of self-regulation concerning matters such as student admissions, curriculum, methods of teaching and assessment, and so on. Under 'Public accountability', the White Paper suggests that higher education curricula should be responsive to the national and regional context. The White Paper proposes that a programme-based approach would promote the diversification of access, curriculum and qualification structure. I wish to use the references made to curriculum in Education White Paper 3 as the basis for discussing some challenges for curriculum in South Africa. I shall also discuss some curriculum aspects not referred to in White Paper 3.

CHALLENGES FOR CURRICULUM IN SOUTH AFRICAN HIGHER EDUCATION

Institutional autonomy

While I do not question the idea of universities enjoying self-regulation on matters such as curriculum, there might be a danger when curriculum becomes a private domain, that is, when self-regulation in practice means that individual lecturers alone determine what is taught in the courses or modules they present.⁶ We can debate how widespread such practices are, but the point is that they do occur. If increased and broadened participation, as stated in Education White Paper 3, is central to the transformation of the South African higher education system and its institutions, then curricula of institutions should be particularly sensitive to the needs of black, women and disabled students. Although we have witnessed increased access to students in the previously mentioned categories, at most institutions it is questionable whether access has shifted beyond formal access to include epistemological access. Morrow (2007:2) argues that formal access concerns providing access to institutions of learning and depends on factors such as admission rules and personal finances; whereas epistemological access is access to knowledge, that is, access to the knowledge that universities distribute.

However, I wish to argue for an expanded notion of epistemological access. The knowledge that universities (ought to) distribute is a contested terrain. In recent years there has been contestation about what and whose knowledge should be included in university teaching and learning programmes. Feminists, post-colonialists and sociologists of science, among others, have questioned the dominance of Western knowledge in university courses and research programmes. I suggest that epistemological access does not only involve giving access to knowledge comprising the Western canon, but also providing access to alternative ways of knowing, including indigenous ways of knowing. To achieve this notion of epistemological access, the development of gender and culturally inclusive curricula is crucial and moreover, to determine when and where this is appropriate.

A reason why scant attention is given to curriculum concerns in higher education discourses could be that something such as a national curriculum framework (as in the case of schools) does not exist. Let me immediately say that I am not suggesting that we should have national curriculum frameworks for higher education. It simply is not possible or desirable. However, I wish to suggest that higher education curriculum matters should be more critically debated in the public sphere – that curriculum should not narrowly be the concern of individual lecturers or groups of lecturers located in their particular institutions.

⁶ This question also relates to a tension as to whether curricula get influenced from inside the academy or by the external political economy, which Bernstein (2000) referred to as 'introjection' and 'projection', respectively. Drawing on the work of Moore (2001), Clegg and Bradley (2006) suggest that in South Africa, higher education curricula, which have traditionally been the product of academic influence (introjection), is increasingly being influenced by external global forces and the need to redress past inequalities (projection).

While I have suggested that institutional autonomy and by association academic freedom should in a certain sense be curtailed, generally speaking, institutional autonomy and academic freedom are desirable ideals. However, there are developments with respect to teaching programmes that might pose threats to institutional autonomy and academic freedom. For example, teaching programmes have been affected by the ascendancy of an audit culture associated with the rise of neoliberalism in recent decades. The emergence of an audit culture (and related terms) in discourses on higher education might be understood against the backdrop of a rising culture of performativity in society generally, and in education more specifically. In his seminal work *The Postmodern Condition* (a commissioned report on the University to the government of Québec) Lyotard (1984) introduces the term ‘performativity’. Since its coining this term has been widely used in the criticism of contemporary education practice. As Barnett and Standish (2003:16) write:

The term aptly exposes the jargon and practices of efficiency and effectiveness, quality assurance and control, inspection and accountability that have become so prominent a feature of contemporary educational regimes. Whatever is undertaken must be justified in terms of an increase in productivity measured in terms of a gain in time.

Moreover, Ball (2003:216) argues that “performativity is a technology, a culture and a mode of regulation that employs judgements, comparisons and displays as means of incentive, control, attrition and change – based on rewards and sanctions”. But how might we understand the emergence of this policy technology in recent years? The rising culture of performativity is closely intertwined with the ascendancy of neoliberalism in the past four decades (see Peters 2004 for a detailed discussion). Associated with the rise of neoliberalism is the decline of the welfare state. The state’s role shifts from that of being a provider to that of monitor and regulator. One way in which this development has played out in South African higher education is that The Higher Education Act of 1998 legitimises the establishment of a Higher Education Quality Committee (HEQC), responsible for monitoring and regulating the quality of all higher education programmes through a process of accreditation of such programmes and qualifications. On the neoliberal agenda the idea of self-regulation is evident in the work of the HEQC through systems and processes of peer auditing, evaluation and review, leading to what is referred to as the attainment of self-accreditation status on the part of higher education institutions. Self-regulation and self-accreditation could be misleading terms because, in a sense, they imply an association with academic freedom and institutional autonomy. However, these terms do not mean the abandonment of state control but the establishment of a new form of control; what Du Gay (1996) calls “controlled de-control” or what Vidovich (2002) refers to as “steering at a distance” – performativity remains the regulatory regime. Teaching programmes in South Africa are therefore subject to regulation by the state even though it might be by ‘remote control’. Evidence of such regulation by the HEQC was, among several processes, the national review of MBA programmes conducted in

the early 2000s and several education programmes in the middle to late 2000s. The outcome of the national reviews not only involved withdrawal of accreditation in some instances but also resulted in curricula of other programmes being reconfigured based on recommendations made. I wish to point out that not all of these developments are bad – performativity and quality assurance mechanisms should not simply be demonised or eulogised. The point is that the quality assurance mechanisms for higher education programmes are increasingly becoming state-driven processes rather than academy-driven ones. In the case of the national reviews conducted by the HEQC, academics were involved in several steps of the quality assurance processes. This is laudable, but the agenda was not set by academics.

Another matter related to performativity is worth noting: the efficiency of teaching – what Bearn (2000:253) called “pedagogical performativity” – smooth, easy and fast pedagogies that have become prevalent in contemporary global society. This concerns teaching with the aim of increasing grades by offering students neatly packaged study guides and readers, encouraging students to use the Internet so as to extend the reach of their lectures, and encouraging students to work on their own or with peers. Efficiency of teaching is increased by decreasing contact time with students. With respect to teaching, what can be measured is valued and what might be of value is not measured.

The challenge is how to develop and design curricula that will give expression to the personal capacities of students amidst a dominant culture of performativity on the one hand, and on the other hand will avert the development of curricula that narrowly suit the desires of individual lecturers and are therefore not publicly answerable. But let me move on to the reference to curriculum in Education White Paper 3 under the heading ‘Public accountability’.

Public accountability

As mentioned earlier, reference is made to curriculum under ‘Public accountability’ in Education White Paper 3, and it is specifically stated that higher education curricula should be responsive to national and regional contexts. I would like to broaden this view by speaking of responsiveness to the African context. The number of international students at South African universities has increased significantly over the past few years. At Stellenbosch University, for example, there are more than 2 000 international students, many from African countries. International students bring benefits to South African universities in many ways, one of these being that they provide an important source of income to universities. But the question that must be answered is to what extent curricula at South African universities have changed to accommodate a diverse student corps.

An even more fundamental question is whether the curricula of South African universities reflect the context in which they are located. I am not suggesting that curricula of South African universities should narrowly reflect mainly local content. It goes without saying

that South African universities should contribute to the production and ‘transmission’ of an international body of knowledge. However, Mahmood Mamdani’s experience raises a very important point. At the 2005 biennial conference of SAARDHE,⁷ Mamdani shared that when he was appointed to a position at the University of Cape Town (UCT) a few years earlier, he found to his astonishment that the university had a Centre for African Studies. He wondered what kind of studies were taking place elsewhere in the university. When UCT markets itself as an African university (and it does), what does this mean? Is this idea reflected in the institution’s curricula? For example, is the growing body of literature on African philosophy reflected in ‘mainstream’ philosophy courses or is it the business of a Centre for African Studies – or something similar – to teach it? These are important but neglected matters in higher education debates in South Africa. They are as important, if not more important than matters such as governance, funding and quality assurance.

An important curriculum project might be to reclaim African knowledge – that African traditions and cultures should occupy a central place in what is learned in universities. Such a project might be necessary as Africa has a long academic history and boasts the oldest existing university, Egypt’s Al-Azhar, which is the only African university still organised according to its original Islamic model. According to Teferra and Altbach (2004:23) all other African universities have adopted a Western model of academic organisation. African universities have been shaped by colonialism and organised according to European models – or as Teferra and Altbach (2004:23) put it: “[H]igher education in Africa is an artifact of colonial policies.” Colonial education policies had the following effects on African higher education: there was limited access (colonial authorities feared widespread access to higher education); the language of instruction was the language of the coloniser; academic freedom and institutional autonomy were limited; and the curriculum was limited (colonisers supported disciplines such as law that would assist with colonial administration) (for a detailed discussion see Teferra & Altbach 2004:23). Not all of this may be relevant to South Africa. However, the point is that curricula in South African universities remain largely organised according to Western academic models. In arguing for the centrality of African interests in curricula does not mean that curricula should exclusively include African concerns. Curricula should also include knowledge forming part of a world corpus of knowledge. Importantly, African universities should contribute to a world corpus of knowledge in the same manner in which Harvard, Oxford and St Andrews do, while remaining unmistakably American, English and Scottish respectively (Makgoba & Seepe 2004:27).

The challenge is how to develop and design curricula that are locally and regionally relevant when Western epistemologies continue to dominate and power relations are unequal. A stepping stone for meeting this challenge might lie in work I have explored in detail elsewhere (see Le Grange 2002, 2007). Briefly: this work draws on insights from inquiry done by Turnbull (1997, 2000) in the field of the sociology of scientific

⁷ South African Association for Research and Development in Higher Education

knowledge. Turnbull examines the way in which knowledge has been produced in different periods and places and what these knowledge production processes have in common. In particular, he examines the building of Gothic cathedrals, Indonesian rice farming, Polynesian navigation, modern cartography, and research into the disease malaria. He shows that in all instances knowledge production processes connect people, places and skills and that empirical verification is not the golden standard but the social organisation of trust. Drawing on Turnbull's work I argue (see Le Grange 2002, 2007) that a focus on the performative side of knowledge might be more useful in integrating seemingly disparate knowledge than a focus on the representationalist view of knowledge (abstract representations of knowledge and its hierarchical ordering into different forms). Moreover, inspiration can be sought from shifting power relations as we are witnessing a rhizome of movements across the global (referred to by some as the new social movements) that are challenging the dominance of Western knowledge. Globalisation also affords spaces for the formation of new solidarities. For example, we are witnessing the internationalisation of indigenous knowledges (knowledges of the colonised) and how these knowledges are deconstructing, deterritorialising and decolonising Western knowledge in traditional Western academic spaces such as mainstream academic conferences. For example, the American Education Research Association (AERA) now has special interest groups focusing on indigenous knowledge, gender issues, post-colonialism, and so on. But let me turn to implications of a programme-based approach to curriculum.

A programme-based approach to curriculum

Teaching programmes have always existed in universities. However, one outcome of the developments in higher education policy in the late 1990s was the reconfiguration of teaching programmes at all South African universities, in terms of both organisational and design features. Several universities have changed their organisational structures to create larger units such as schools and colleges, resulting in the abandoning of traditional academic departments organised along disciplinary lines. Traditional heads or chairpersons of departments have made way for school and/or programme directors. In many instances these larger structures are organised around programmes and not disciplines. Furthermore, in terms of programme design there has been a shift in the sense that academic disciplines do not necessarily inform the goals and visions of programmes, but outcomes (some generic to all teaching programmes in South Africa and some specific to particular programmes). These outcomes are linked to the needs of both global and South African societies. The approach to curriculum design is a design down deliver up one, where modules (that are traditionally organised around disciplines) now have to be (re)designed in service of the vision and outcomes of a programme. This is at least how it works in theory – the extent to which these changes are reflected in practice vary depending on the institution. North-West University is an example of an institution that has made fairly comprehensive changes to its organisational structures with respect to academic programmes (both research and

teaching). At Stellenbosch University, for example, new programme structures were put in place but academic departments were retained. Smaller programmes are located within departments and larger ones across departments. But what has been the impetus for these developments?

In the middle to late 1990s there was much debate in South Africa about an emerging new mode of knowledge production (mode 2). Much of the debate is captured in a book edited by Kraak (2000b). Gibbons, Limoges, Nowotny, Schwartzman, Scott and Trow (1994) and Scott (1995) argue that we are witnessing a shift from disciplinary science (mode 1) to a new mode of knowledge production that is trans-disciplinary, trans-institutional and heterogeneous. Protagonists of the mode 2 thesis argue that this new mode of knowledge production is an outcome of two powerful social forces, namely globalisation and the democratisation of access to higher education (for more detail see Kraak 2000a). Gibbons (2000:41) elaborates on the effects of democratisation by pointing out that with the massification of higher education the number of graduates has become too large to be absorbed into the disciplinary structure of academic life. The mode 2 thesis of Gibbons *et al* (1994) and Scott (1995) influenced post-apartheid South African higher education policy significantly, in particular the following policy texts: the final report of the National Commission on Higher Education (NCHE), entitled *A Framework for Transformation* (1996); the Department of Education's Green Paper on Higher Education Transformation (RSA DoE 1996); the Education White Paper 3: *A Programme for the Transformation of Higher Education* (RSA DoE 1997); and the Higher Education Act of 1997. One of the influences that the mode 1 versus mode 2 knowledge debate (flowing from the mentioned documents) has had on higher education in South Africa is the introduction of a programme-based approach to teaching in place of more disciplinary structured offerings. Although there has been extensive debate on mode 1 and mode 2 thinking from a research perspective, that is, in relation to knowledge production, in South Africa very little attention has been given to the implications of a programme-based teaching approach for curriculum development and design (some exceptions are Moore 2001 and Ensor 2004). It is important that these be explored. In many cases, as is the case in the faculty where I work, programmes are designed across disciplines and departments. The modules that constitute a particular programme are located in different departments. This leads to tension concerning what drives changes to a programme. Traditionally, it is within disciplines that new knowledge is produced – that disciplines are renewed through research not programmes. 'New' disciplinary knowledge is shared and transmitted in modules that are located in academic departments. Changes to modules informed by such disciplinary knowledge may be in tension with the aims, direction and vision of a teaching programme. Ideally, the renewal of a programme should be a synergy of changes happening at the module level (informed by new thinking in disciplines) and changes at programme level, such as whether the programme caters for the needs of

black, women and disabled students.⁸ As yet we know very little about how the tension described manifests itself in different programmes at universities and whether it is experienced differently in Science Engineering and Technology (SET) in comparison to Human and Social Sciences programmes, for example. Critical reflection on some the implications of a programme-based approach for curriculum design and development is crucial at this point in time in South Africa.

One challenge is to find out what gets lost and what is gained in the transition from mode 1 to mode 2 programme designs. What do we lose when disciplines go and what do we gain from integrated courses? Of course, mode 2 knowledge will not simply supplant mode 1 knowledge – as we are witnessing the emergence of a transdisciplinary trajectory in knowledge production, new disciplines are still being developed in certain fields. The reality is, however, that some disciplines are fragmenting or losing coherence and that the conceptual vocabulary for understanding this is to be found in the Deleuzo-Guattarian concept of rhizome (Deleuze & Guattari 1987) rather than, for example, Bernstein's (2000) dichotomy of vertical and horizontal discourses (for more detail see Le Grange 2011). But let me now turn to another challenge.

Another challenge

There are other curriculum challenges for higher education in South Africa linked to the previous challenge, but not alluded to in recently produced higher education policies in South Africa. I shall discuss one such challenge as a particular example in time: the inclusion or exclusion of environmental concerns in higher education curricula. It is widely known that environmental problems have reached unprecedented levels. Few would disagree that our planet is on the brink of ecological disaster. Environmental problems pose several risks to humanity and the survival of life on the planet. And so the challenge is how we might include environmental concerns in higher education programmes across disciplines – not only to make students environmentally aware (or to enhance their awareness) but also to mediate environmental learning that would lead to action to improve environmental risk positions. After all, the most wonderful and innovative teaching programmes will be of no use if we do not have a decent planet to put them on. Appropriate environmental education programmes in higher education are important given the fact that those holding university degrees contribute more to environmental destruction than any other group. There are of course university modules that have for decades included environmental concerns, for example, undergraduate geography and environmental science modules, ecology components of biology modules, and so on. However, what we might not be witnessing is the translation of a rich body of knowledge being produced in a range of disciplines in engineering, natural sciences, and disciplines of the arts and social sciences such as history, geography, political science, literary criticism and fine art into teaching and

⁸ This might be less relevant at undergraduate level where in Bernsteinian terms the field of production and field of recontextualisation are distinctive.

learning programmes at the undergraduate level. The developments within disciplines that I have mentioned and external influences associated with environmental concerns such as climate change and its risks (debates in the public sphere), for example, should be more strongly reflected in the higher education curricula of our time.

How might we respond to these challenges?

I suggest that the first response might be to shift *blind spots* in higher education curricula to *blank spots*. Wagner (1993) argues that *blank spots* are what scientists know enough about to question but do not answer, and *blind spots* are what they do not know enough about or care about. Such a shift means that what is ignored or neglected would at least become part of the conversations and discussions in university lecture venues. Such a shift could serve as the basis for:

- higher education institutions to begin to develop approaches to curricula that are more inclusive, in terms of gender and culture, in all areas of specialisation they offer, acknowledging that it might be more easily done in certain areas;
- developing criteria for reviewing appropriate modules and programmes at higher education institutions so as to establish whether the module or programme takes into account gender and cultural inclusiveness; and
- including environmental concerns in all undergraduate programmes across an array of disciplines.

Furthermore, research could be conducted and reported on tensions experienced with a programme-based approach to teaching as well as what gets lost and is gained in the shift from a disciplinary to a transdisciplinary approach to designing teaching and learning programmes. For, example, one may ask which concepts and skills are no longer learned when botany and zoology are not taught to first-year university students and in their place an integrated programme is offered on biodiversity. Likewise, which concepts and skills are gained when an integrated programme on biodiversity replaces botany and zoology?

As teaching becomes more efficient (in a culture of performativity) through what I have called ‘fast pedagogies’, we might need to look for opportunities to slow down or even pause to reflect – to introduce slow pedagogies that might co-exist in parallel (collaterally) with ‘fast pedagogies’. It is so that we cannot turn back the clock or long for a world where time and space were not so compressed as today. However, we can look for spaces for opposites (slow and fast) to co-exist – spaces that allow hybridity. Moreover, there is always the potential for something to become something other than what it is (fast becoming slow) through a process of deterritorialisation. As Colebrook (2002:xxii) so neatly captures:

Life creates and furthers itself by forming connections or territories. Light connects with plants to allow photosynthesis. Everything, from bodies, [concepts], to societies, is a form of territorialisation, or the connection of forces to produce distinct wholes. But alongside every territorialisation is the power of

deterritorialisation. The light that connects with the plant to allow it to grow also allows for the plant to become other than itself: too much sun will kill the plant, or perhaps transform it into something else (such as sun-dried leaves becoming tobacco or sun-drenched grapes becoming sultanas). The very connective forces that allow it to become what it is (territorialise) can allow it to become what it is *not* (deterritorialise).

Vectors of escape from the debilitating effects of contemporary developments (for example, performativity and mode 2 programme organisation) therefore do not only lie outside but within such processes. However, connecting students to communities and a sense of place (or perhaps places) is cardinal if curricula are to be gender and culturally inclusive and also include environmental concerns. What is essential is that students learn by doing.⁹ Community service-based learning (CSBL) is one vehicle that offers this potential. It was John Dewey who said that learning occurs when knowledge is directly related to experience (Dewey 1990). CSBL links directly what happens in classrooms to real-world experience. Crump (2002:144) points out that the overreaching goal of CSBL is to “provide students with a relevant education that promotes the civic involvement critical to maintaining democratic institutions”.

CONCLUSION

As I have mentioned, curriculum is a neglected terrain in higher education. However, in a contemporary world where knowledge is produced and transmitted rapidly and students migrate from their countries of birth to study elsewhere, it might be important to discuss afresh what knowledge is most worth learning in higher education and how this knowledge might be organised in higher education programmes. These are questions central to curriculum. In this chapter I have identified four areas of exploration linked to curriculum: *institutional autonomy*, *public accountability*, *a programme-based approach* and *environmental concerns*. I suggest that the first three are blank spots in the sense that a link has been made between these aspects and curriculum in higher education policy in South Africa. However, these aspects have not been sufficiently explored and have not been taken up sufficiently in higher education discourses and practices. I suggest that the fourth category, which might serve as a particular example (environment as a higher education curriculum concern), remains a blind spot because it has not been taken up seriously in higher education policy despite coverage in the media and the South African government’s involvement in, for example, climate change discussions at international conventions. In my discussion of the four matters I have attempted to identify curriculum challenges that these present in a South African context. I have suggested that these matters should form part of ongoing conversations in lecture venues, but that more is needed; that is engagement with communities and places if curricula are to become more inclusive.

⁹ Students should learn by doing where it is appropriate, that is, where opportunities are provided for acquiring procedural knowledge. This would not apply to the learning of propositional knowledge.

I part with Kappelar's (1986:212) words: "I do not really wish to conclude and sum up, rounding off the argument so as to dump it in a nutshell for the reader. A lot more could be said about any of the topics I have touched upon ... I have meant to ask the questions, to break out of the frame ... The point is not a set of answers, but making possible a different [higher education] practice ..." – a higher education practice with a more inclusive and engaged curriculum.

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4

TOWARDS A PRINCIPLED BASIS FOR CURRICULUM DIFFERENTIATION

LESSONS FROM A COMPREHENSIVE UNIVERSITY

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INTRODUCTION

The Nelson Mandela Metropolitan University (NMMU) is a comprehensive university, formed through the merger of the former University of Port Elizabeth, Port Elizabeth Technikon and one campus of the former Vista University. The six comprehensive universities in the South African higher education sector represent a recent phenomenon emerging through the restructuring process that was initiated in terms of the National Plan on Higher Education (RSA DoE 2001, 2002). Four of the six new comprehensive universities that were founded in 2005 were established through the merger of traditional universities and technikons, while the other two were required to broaden their educational mission through the inclusion of 'technikon-type' programmes in conjunction with their existing suite of 'university-type' programmes. The most distinctive trait of the comprehensives is their ability to offer academic programmes across the full range of qualification types, namely the vocationally and career-focused qualifications that are typical of the universities of technology,¹⁰ and professional and general formative qualifications characteristic of traditional universities. As such, the comprehensive universities have few parallels internationally, with the German *Gesamthochschulen* constituting the closest comparator.¹¹

According to the Ministry of Education, the new comprehensive universities present an important innovation in the higher education landscape. They hold the promise of increased access for a wider diversity of students, improved articulation between

¹⁰ The former technikons were reconstituted as universities of technology in 2003 (Du Pré 2010).

¹¹ It is interesting to note that the *Gesamthochschulen* experiment to create a closer association between research-oriented university education and the vocationally oriented education offered by the colleges met with little success. In fact the higher education system in Germany has moved away from the idea of a unified system in favour of maintaining a distinct binary system (Gibbon 2004; Kyvik 2004).

career-focused and general academic programmes, and expanded opportunities for research and applied research by linking the research missions of the technikons with the research strengths of universities (RSA DoE 2002). However, significantly absent from the policy discourse to date has been any reflection on the academic rationale behind such expectations, particularly in relation to access and articulation. The rest of this section and the next section present two specific challenges that need to be addressed if the comprehensive universities are to succeed in playing the distinctive role that the policy environment anticipates – whether these institutions have been formed through mergers or the expansion of their educational missions. Both challenges provide a backdrop for the elaboration of a conceptual framework for curriculum differentiation in the rest of the chapter.

The first challenge is related to the assumption that it is possible to bring qualifications across the vocational-professional-general formative spectrum together into an integrated qualifications structure that provides enhanced opportunities for articulation and between qualification levels and types. As Wheelahan (2009) remarks in her discussion of dual sector institutions, the notion of ‘seamlessness’ is often accepted uncritically, leading to a denial of the epistemological challenges facing the development of a coherent curriculum framework across different qualification types. She remarks that “epistemological boundaries must be explicitly navigated, rather than ignored, if students are to be supported in crossing them” (Wheelahan 2009:36). It follows that for NMMU the success of the merger depends largely on the possibility of creating a curriculum framework that clarifies the distinctions between different types of academic programmes in terms of their knowledge properties within the context of the specific academic fields and disciplines that it accommodates.

To this end in 2006 NMMU, together with the University of Johannesburg – another comprehensive university created through a cross-sector merger – was granted funding through the South Africa-Norway Tertiary Education Development (SANTED) programme for the development of a consolidated programme and qualifications framework at both universities. At NMMU the crux of the project was the development of a conceptual framework for curriculum differentiation between qualification pathways. The work in this part of the project proceeded in two phases. In the first phase, ten case studies were selected from disciplines and fields in which university- and technikon-type qualifications were now offered in parallel by a consolidated academic school or department. Each case study focused on a national diploma and a degree programme within a specific area of study. Preliminary proposals for a consolidated qualifications structure in all the case study areas were developed on the basis of an analysis of aspects such as the purpose, outcomes and learning components of existing programmes as well as the proposed educational purpose of particular programmes, and the access and articulation opportunities offered by them, within an integrated qualifications framework. In the second phase, four case studies were selected for a deeper analysis with the purpose of developing a curriculum typology that would clarify the curricular characteristics of different types of qualifications within specific fields and disciplines.

Both phases of the project were based on Muller's work on curriculum planning for comprehensive universities, which sets the fundamental pillars for conceptualising differentiation between qualification pathways (Muller 2008, 2009). This chapter further elaborates on how the SANTED project at NMMU has built on Muller in the development of a curriculum framework. Its key contribution is firstly to conceptualise the recontextualisation of knowledge types into curriculum types and secondly to develop an analytical tool for the analysis of differentiation and progression of curriculum. From section 3 onwards, this chapter reports on the conceptual and methodological framework, the findings of the case study analysis and the implications of these findings at both institutional and national level. Before proceeding to these issues, attention is given to the second challenge facing comprehensive universities in the development of an appropriate qualifications framework, namely the tension between hierarchical prestige and functional specialisation.

DIFFERENTIATION: KEY DEBATES

The broader debate on differentiation in higher education provides an important perspective on prospects for the promotion of access and articulation within the comprehensive universities. Bleiklie (2003) argues that within unitary higher education systems the manner in which institutions define their academic identities is influenced by the value that they, and the policy and regulatory environment in which they operate, attach to hierarchical prestige over functional specialisation. A hierarchical model implies standardisation, and therefore prestige based on a common set of criteria that typically are shaped by the norms of traditional research universities. A model of functional specialisation provides space for different institutions and institutional types to make differential contributions to higher education provision, thereby creating a framework within which institutions that offer vocationally oriented qualifications may play as valuable a role as research-led institutions. The tension between an orientation towards hierarchical prestige and functional specialisation plays itself out within individual institutions as well as higher education systems. One can see these tensions and struggles over academic identity at the curriculum level in, for example, what is referred to as the phenomenon of academic and vocational drift (Codling & Meek 2006), with drifts towards greater vocationalism in traditional universities and drifts towards more theoretically oriented work in universities of technology.

The implication for higher education institutions in general, and the comprehensive universities in particular, is that ideological and cultural assumptions about academic, and therefore hierarchical, prestige will invariably influence the manner in which members of academic staff view the value of different qualification types such as degrees, and especially diplomas. The overall institutional educational philosophy, the culture of specific academic units and the signals that are sent out by the policy environment will shape the extent to which academic staff members are able to appreciate the intrinsic value of qualification types that fulfil distinctly different, yet equally valuable, functions. With respect to the policy environment, South African higher

education discourse exhibits a tension similar to that of many other national systems. On the one hand, the funding framework privileges hierarchical status through the application of an undifferentiated approach that rewards research activities associated with traditional universities. On the other, statements such as the Declaration at the 2010 Higher Education Summit affirm the urgent need to develop a differentiated higher education system that provides for a continuum of institutions with diverse strengths and purposes.

With respect to NMMU, its policy discourse signals an endorsement of functional specialisation. The University's mission emphasises its commitment to offering "a diverse range of quality educational opportunities that will make a critical and constructive contribution to regional, national and global sustainability" (NMMU 2010:18). The reality for NMMU is that it attracts 70% of its student population from its own province, the Eastern Cape, the most economically and educationally impoverished of South Africa's provinces. For the majority of the students who qualify for university, the diploma is their only access route. As a result, one of the underlying premises of NMMU's developing academic plan is that a strong suite of diploma programmes, with differential approaches to admission and placement, will make a major contribution to providing access opportunities, as well as addressing education and training needs at a local and regional level. Arguably, NMMU's choice for functional specialisation is facilitated by the fact that a large percentage of its undergraduate programmes have a professional or vocational nature. Institutions which have a more balanced mix of qualification types may find it more difficult to navigate the tension between hierarchical status and functional specialisation. The key issue is that strategic decisions about the rearticulation of qualifications and the consolidation of qualification structures will be influenced by the relative power of hierarchical and functional views. The navigation of epistemological boundaries within a conceptual framework for curriculum planning takes place within the context of contestations around the value of different types of qualifications.

In order to explore the conditions related to the development and preservation of strong diploma programmes, the SANTED project focused on the relationship between undergraduate diplomas and degrees that, as a result of the merger, are now offered within the same academic department or school. In terms of the regulatory system that preceded the new Higher Education Qualifications Framework (HEQF), and that is still reflected in the design of most undergraduate diplomas and degrees, both qualifications sit at the same exit level on the National Qualifications Framework (NQF), but have different admissions requirements.

We now turn to the development of a framework for conceptualising knowledge and curriculum differentiation in these respective qualifications.

CONCEPTUAL AND METHODOLOGICAL FRAMEWORK: CONCEPTUALISING KNOWLEDGE AND CURRICULUM DISTINCTIONS

The starting point for the conceptual framework is Muller's (2008) classification of occupational fields, knowledge and induction. Muller argues that within each occupational group there is differentiation in the knowledge base, ranging from practical knowledge in the occupational pathway to theoretical knowledge in the academic pathway and various combinations in between. It is, he argues, the combinations in between that offer the biggest challenge for the comprehensives and requires more fine-grained distinctions. For these finer-grained distinctions we now turn to Gamble (2009).

Building on and extending Bernstein's (2000) theorisation of knowledge, Gamble (2009) also distinguishes between theoretical and practical knowledge (what she calls 'general' and 'particular' knowledge). She argues that these forms of knowledge can be further divided into principled and procedural. In other words theoretical knowledge can be principled (pure theory) or proceduralised (applied theory). This distinction between pure and applied theory is familiar to us. Gamble argues however that the same principled/procedural division can also be found in practical knowledge. There is the proceduralised practical knowledge of the everyday, but her research into craft provided evidence that practical knowledge can also be principled. While the cabinet-maker's knowledge is tacit, it is deeply principled. It relies on an understanding of the relationships between parts and whole, a grasping of the "essential principles of arrangement" (Gamble 2004:196). This research gives us insight into knowledge building that emerges from the field of practice – often tacit, but as Gamble argues, highly principled, enacted and embodied. The key point is the recognition that while the distinction between practical and theoretical knowledge is crucial, within these 'types' there are similarities – practical knowledge can be more or less principled and theoretical knowledge can be more or less proceduralised.

Drawing on Gamble's conceptual distinctions, we devise a knowledge typology which distinguishes between *conceptual* knowledge and *procedural* knowledge (see Figure 4.1). (These terms are synonymous with Gamble's general and particular or the more commonly used distinction of theoretical and practical, but we believe they carry less 'baggage' for application in higher education curriculum.) For each of these types further distinctions are made between principled and procedural, thus creating a four-part knowledge typology: conceptual knowledge, proceduralised conceptual knowledge, procedural knowledge and principled procedural knowledge. Thus both conceptual and procedural knowledge can be principled but with an important difference: in principled procedural knowledge the principles emerge from the procedures themselves; they emerge from the codification of practice. In proceduralised conceptual knowledge, the principles emerge from the conceptual domain; from the theory. These are distinctive forms of knowledge and do not necessarily lead from

one to the other. Procedural knowledge does not lead to conceptual knowledge and conceptual knowledge does not lead to procedural knowledge. This is a fundamental issue to which we return later in the discussion of curriculum and articulation possibilities.

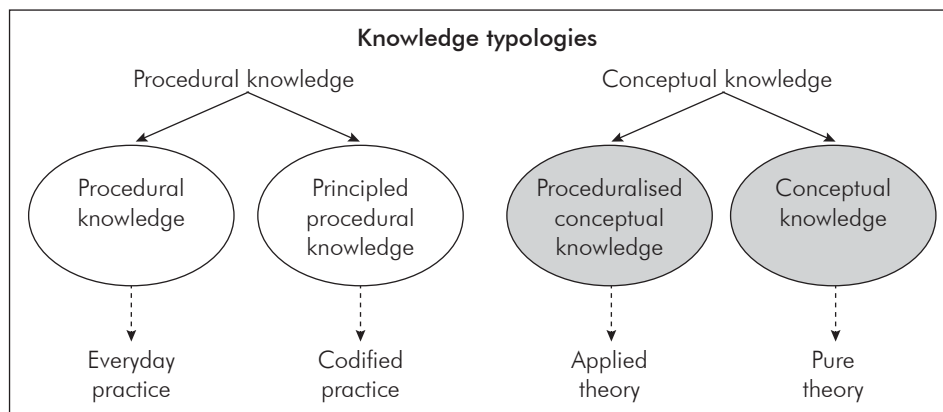


FIGURE 4.1 Knowledge typologies (adapted from Gamble 2009)

Given this knowledge typology the conceptual framework accounts for what happens when these different kinds of knowledge are drawn on as resources for curriculum, or 'recontextualised' into curriculum (Bernstein 2000). Muller (2008) distinguishes between different curriculum logics, that is, curricula that have conceptual coherence and those that have contextual coherence. Conceptual coherence refers to curricula with an internal logic; the logic of the curriculum comes from the logic of the discipline (though the logic of the discipline and the logic of the curriculum are never exactly the same). Contextual coherence refers to curricula with an external logic; the logic comes from the external purposes of the curriculum, such as professional and occupational requirements. These logics are better thought of as a continuum since both are always present – curricula that cohere around a contextual logic are not devoid of conceptual knowledge, and curricula that cohere conceptually are not devoid of contextual concerns. The issue is: which is the dominant logic? Depending on whether it is predominantly conceptual or contextually oriented, different types of knowledges will be recontextualised in different ways.

This is the conceptual framework that we took to the analysis of four case studies – Architecture, Chemistry, Building Environment and Journalism and Media Studies – that constituted the second phase of the project. On the assumption that issues of differentiation and progression of curriculum will vary according to the knowledge structure of the discipline, we intentionally selected, as far as possible, case studies from different disciplinary groupings (Becher & Trowler 2001): Chemistry (hard/pure), Architecture and Building Environment (hard/applied), and Journalism and Media Studies (soft/applied & soft/pure).

In each case study documentation was collected for each module that made up the diploma and the degree: module outlines, assessment tasks and rubrics, lecture PowerPoint slides and any other documentation that staff were willing to supply. The one exception was the Chemistry case study: in this case Chemistry is a stream of the BSc along with two other streams (Microbiology and Biochemistry). Only the Chemistry stream documentation was collected and analysed.

For each module the following questions were posed:

- What is the dominant logic of the module curriculum? Is it predominantly a conceptual or a contextual logic?
- What type of knowledge dominates in the module? Is it proceduralised knowledge or principled proceduralised knowledge? Is it conceptual knowledge or proceduralised conceptual knowledge?

A preliminary analysis of the Journalism and Media Studies case study revealed in both the diploma and the degree modules which had a conceptual logic as well as which had contextual logic. In response to the second analytical question, the preliminary analysis revealed a number of possible combinations (see Figure 4.2). With respect to the contextually oriented modules, there were three possibilities: those with procedural knowledge (C1), principled procedural knowledge (C2) and procedural conceptual knowledge (C3). With respect to conceptual orientation, there were two possibilities: those with predominantly proceduralised conceptual knowledge (applied theory) (C4) and those with predominantly conceptual knowledge (pure theory) (C5).

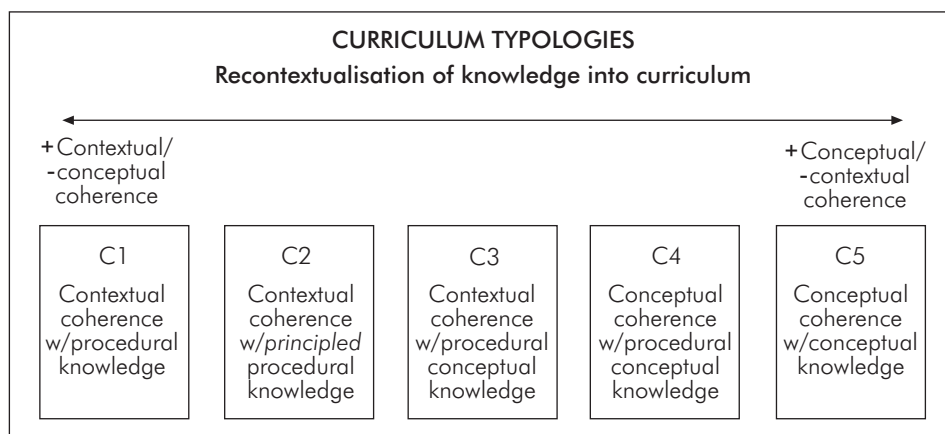


FIGURE 4.2 Curriculum typologies

We are not claiming that these C1-C5 categories are exhaustive of the curriculum possibilities: with further analysis new types or variations of existing types may emerge. What is particularly significant is the distinction between C2 and C3 curriculum types – contextually oriented modules with procedural knowledge in contrast to those with

conceptual knowledge. In other words, the framework recognises the possibility of vocationally oriented curriculum with a conceptual knowledge base.

From the preliminary analysis the need also arose to specify different levels of cognitive complexity. We did this by using a taxonomy devised by Umalusi¹² (adapted from Krathwohl 2002, cited in Gamble 2009) (see Table 4.1). The analysis of cognitive complexity enabled us to distinguish between, for example, a conceptually oriented module that simply required recall (low cognitive demand), explanation (medium cognitive demand) or application (high cognitive demand). The key issue here is that cognitive complexity is not coterminous with curriculum type. It is possible to have C3 curricula at a high level of cognitive demand.

Using these analytical tools, each module for each of the case study curricula (diploma and degree) was coded for curriculum type (C1-C5) and for cognitive complexity (Low, Medium or High). While the researchers did an initial coding, decisions were confirmed after discussions with the academic staff who teach on these programmes. Once the coding was complete, modules were aggregated across each year (Year 1, 2 and 3) by curriculum type and cognitive complexity and weighted by credits, e.g. all the credits for the modules coded C2 within a particular year were added and divided by the total credits for the year (120) to arrive at percentage of curriculum type per year, e.g. 16% of credits in Year 1 of the National Diploma (Building) are C2 type. Cognitive complexity was recorded according to whatever level (L, M & H) was most dominant. For example, C2 H means that the proportion of C2 type credits are at a high level of cognitive demand. If there was relatively even allocation, both levels were recorded, e.g. C2 M & H. While this methodology is labour intensive in that it requires analysis of each module, we feel that this is necessary to capture the aggregate knowledge profile of the programme.

FINDINGS: SUMMARY OF THE CASE STUDY FINDINGS

The findings for the four case studies are subsequently presented: Building Environment, Journalism and Media Studies, Chemistry and Architecture. The analysis of each programme results in a graphic representation of the selection and progression of curriculum types. 'Progression' refers to the extent to which there is development of complexity with respect to a particular curriculum type across Year 1 to 3 of the programme. For example, C2 Low in Year 1 to C2 H in Year 3 would be evidence of progression. The findings for each case study are presented in three parts: selection of curriculum types, sequence of the curriculum, and the implications of selection and sequence for progression and articulation.

¹² Umalusi is the quality assurance body in South Africa for general and further education and training bands of education.

TABLE 4.1 Levels of cognitive demand/complexity (adapted from Gamble 2009)

Category	Level	Description	Examples (from Building Environment)
LOW Factual recall Rote	1: Simple	<ul style="list-style-type: none"> Simple factual recall 	Define a Bill of Quantities
	2: Medium	<ul style="list-style-type: none"> Complex content recall 	Discuss the factors to consider when obtaining prices for materials
MEDIUM Understanding of concept/principle Application Analysis	1: Simple	<ul style="list-style-type: none"> Simple relationships Simple explanations 	Explain what is meant by ...
	2: Medium	<ul style="list-style-type: none"> More complex relationships or explanations Counter-intuitive relationships Qualitative proportional reasoning 	Differentiate between estimating and costing
	3: Challenging	<ul style="list-style-type: none"> Identification of principles that apply in a novel context 	Write a typical specification clause on: a) an excavation for surface trenches b) mixing & placing of concrete
HIGH Problem solving Creativity Critical & analytical skills Application & integration of all skills	1: Simple	<ul style="list-style-type: none"> Simple procedure Plugging into formula with only one unknown No extraneous information Known or practised content 	Generate quantities for the element 'Finishes' according to given schedule of finishes
	2: Medium	<ul style="list-style-type: none"> More complex procedure Construction or interpretation of diagrams Problems with 2 or more steps Basic logic leaps Proportional reasoning Interpretation of data tables Higher level of writing skills/creativity 	Calculate the individual cost items in a boundary wall (specs given) and add overhead profit once only to total cost
	3: Challenging	<ul style="list-style-type: none"> Integration of all skills Publishable product Complex abstract representation Combination of concepts across sub-fields Complex problems involving insight and logic leaps Formulating new equations (using all unknowns) Problem solving in a novel context 	Calculate the estimated building costs of a dwelling based on drawings, specs and given info by using the Rough Quantities Method

BUILDING ENVIRONMENT: NATIONAL DIPLOMA (BUILDING) AND THE BSC (CONSTRUCTION ECONOMICS)

Selection of curriculum type (see Figure 4.3)

In the National Diploma (Building):

- The overall curriculum logic is contextual with a very high proportion of proceduralised conceptual knowledge (C3) (83% in Year 1, 100% in Year 2 and 3).
- A very low proportion of principled procedural knowledge (C2) (16% in Year 1).

In the BSc (Construction Economics):

- The overall curriculum logic is contextual with a very high proportion of C2 and C3 across all three years of the programme. (C2: 59% in Year 1, 38% in Year 2 and 43% in Year 3) (C3: 28.5% in Year 1, 62% in Year 2, 46% in Year 3). There is a surprisingly high proportion of principled proceduralised knowledge (C2) in comparison with the National Diploma (Building).
- There is a very low proportion of C4 (12% in Year 1 and 9% in Year 3).

Sequencing of curriculum type

In the National Diploma (Building):

- There is a high level of cognitive complexity with respect to C3 at all levels of the diploma (high and medium in Year 1 and high in both Year 2 and 3).

In the BSc (Construction Economics):

- With respect to C2, there does not appear to be an increase in cognitive complexity to Year 3.
- With respect to C3, there is some increase in cognitive complexity from Year 1 to 3.
- With respect to C4, there is no increase in cognitive complexity from Year 1 to 3.

Implications for progression and articulation

A number of implications for progression and articulation can be drawn from the analysis of the Building Environment case study:

The diploma has a clear core of C3 at a high level of cognitive complexity. With respect to the degree, the main progression appears also to be in C3. Surprisingly, however, the cognitive complexity of the C3 in the degree appears to not be as high as the diploma. One would also have expected a higher proportion of C4 in the degree. Questions also need to be raised about the high proportion of C2 in this degree. Given the small proportion of C4 in the degree, progression into an honours degree may be problematic. In terms of articulation from the diploma to the degree, the diploma student may be well-prepared with respect to C3 but the C4 requirements of the degree in Year 1 may pose a stumbling block.

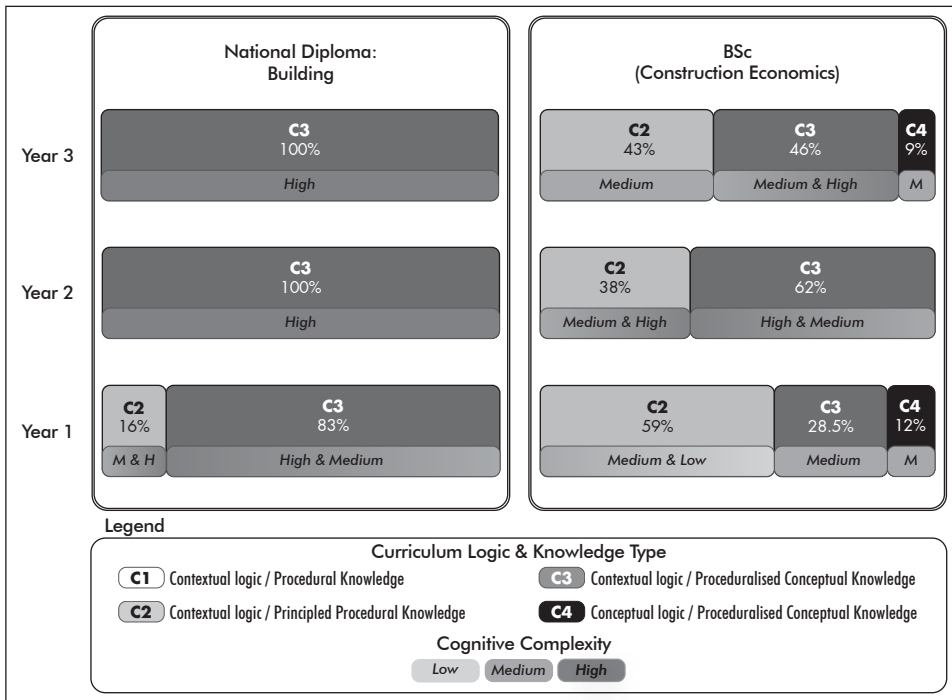


FIGURE 4.3 National Diploma (Building) / BSc (Construction Economics): selection and sequencing of curriculum type

JOURNALISM & MEDIA STUDIES: NATIONAL DIPLOMA (JOURNALISM) AND THE BA (MEDIA, CULTURE & COMMUNICATION)

Selection of curriculum type (see Figure 4.4)

In the National Diploma (Journalism):

- The overall curriculum logic is contextual with a very high and increasing proportion of principled procedural knowledge (C2) within each year (69% in Year 1, 79% in Year 2, 100% in Year 3).
- There is a relatively small proportion of conceptual knowledge (C3 & C4) (C3: 12% in Year 1, 14% in Year 2, 0% in Year 3) (C4: 6% in Year 1, 7% in Year 2, 0% in Year 3).

In the BA (Media, Communication & Culture):

- The overall logic of the degree also appears to be contextual with a high proportion of contextually oriented curriculum types (C2 & C3) (C2: 32% in Year 1, 38% in Year 2, 47% in Year 3) (C3: 49% in Year 1, 38% in Year 2, 33% in Year 3).

- Although it is contextually oriented, in contrast to the diploma, there is a high proportion of conceptual knowledge (C3 & C4) (C3: see above) (C4: 18% in Year 1, 24% in Year 2, 20% in Year 3).
- There is a surprisingly high proportion of principled procedural knowledge for a degree (C2) (32% in Year 1; 38% in Year 2; 47% in Year 3).

Sequencing of curriculum type

In the National Diploma (Journalism):

- There is an increase in complexity from low to high levels of C2 between Year 1 to Year 3.
- There is no increase in complexity in the conceptual knowledge (C3 & C4) between Year 1 and Year 2.

In the BA (Media, Communication & Culture):

- There is evidence of increasing complexity with respect to C2, C3 and C4.
- In contrast to the diploma, the degree shows increasing complexity of conceptual knowledge (both C3 & C4).

Implications for progression and articulation

The following implications for progression and articulation can be drawn from the analysis of the Journalism and Media Studies case study:

The diploma appears to have C2 as its core curriculum type. The relatively small proportion of conceptual knowledge and the lack of progression of conceptual knowledge in the diploma raise a number of concerns. The lack of C3/C4 in the diploma would suggest that progression from the diploma to postgraduate studies as well as articulation from the diploma to the degree may be difficult. (Journalism staff confirmed that currently those students who articulate with 180 credits in the diploma across to the degree struggle academically.) If systemic articulation pathways are to be established, this analysis suggests the necessity of establishing a stronger conceptual taproot in the diploma. More fundamentally, questions need to be raised about whether a programme which is predominantly C2 belongs in higher education.

The degree does have a strong core of conceptual knowledge. However, questions also need to be raised about the high proportion of procedural knowledge (C2/C3) in the degree. It is possible that this is a result of what staff identified as a “contextual drift” as the degree has felt pressure in the recent past to be more ‘relevant’, to produce graduates who are more “marketable”, more “attractive”.¹³

This analysis suggests, however, that the department may need to make some choices with respect to the different purposes of these qualifications. If the degree

¹³ Journalism staff comments at the SANTED NMMU workshop, 20 September 2010.

is predominantly preparation for an academic track then it may need to increase its proportion of C4 knowledge and shift towards a conceptual coherence. If the primary purpose of the degree is to produce media professionals then this raises questions about the purpose of the diploma. One option would be to phase out the diploma and develop an extended programme (four-year degree) for students who come in with lower admission points. The department can then focus on developing graduates for the field of Media & Journalism with strong conceptual foundations for both professional and postgraduate purposes.

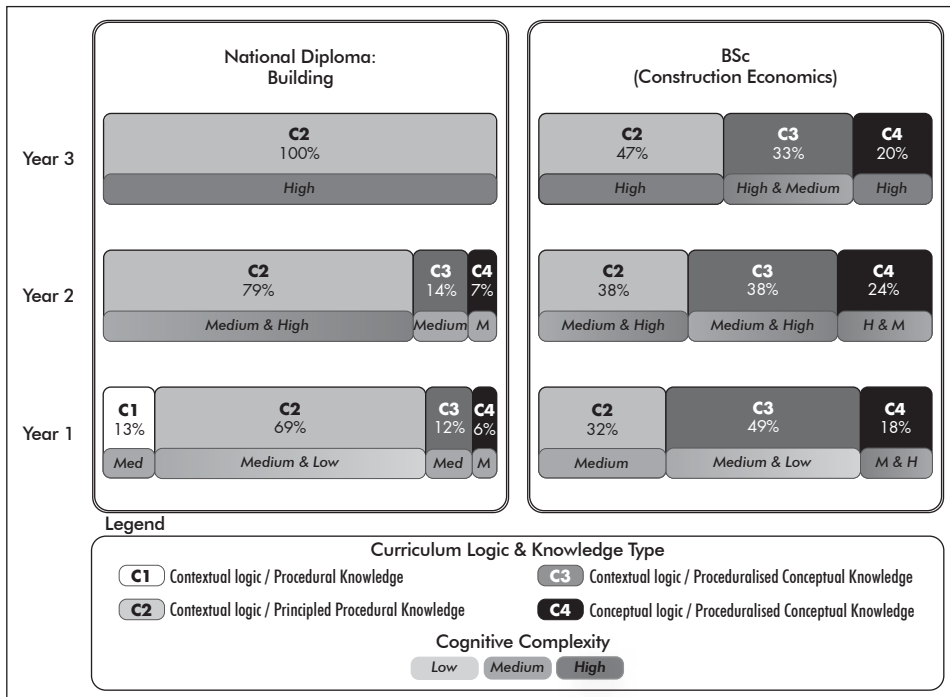


FIGURE 4.4 National Diploma (Journalism) / BA (MCC): selection and sequencing of curriculum type

CHEMISTRY: NATIONAL DIPLOMA (ANALYTICAL CHEMISTRY) AND THE BSC (CHEMISTRY)

Selection of curriculum type (see Figure 4.5)

In the National Diploma (Analytical Chemistry):

- The overall curriculum logic is contextual, with a high and increasing proportion of C3 within each year (C3: 30% in Year 1, 50% in Year 2, 100% in Year 3).
- In contrast to other diploma case studies, there is a high proportion of C4 in Year 1 and 2 (59% in Year 1, 35% in Year 2).

In the BSc (Chemistry):

As noted above, this analysis focuses only on the Chemistry stream within the BSc degree which constitutes 30, 40 and 60 credits in Year 1, 2 and 3 respectively. The other credits making up the other streams of the degree have not been analysed.

- The overall logic of the curriculum is conceptual with a very high proportion of C4. In Year 2 and 3 there is an exclusive component of C4.
- Surprisingly, there appears in Year 1 to be less C4 than in the Year 1 of the diploma.

Sequence of curriculum type

In the National Diploma (Analytical Chemistry):

- The main progression from Year 1 to 3 appears to be in C3. There is no apparent increase in cognitive complexity in C4 between Year 1 and 2. There is some increase in cognitive complexity in C2 between Year 1 and 2.
- In the BSc (Chemistry):
- There is a high level of cognitive complexity from Year 1 to 3.

Implications for progression and articulation

The graphic reveals clear distinctions between the diploma and the degree. The diploma is predominantly C3 and progression is in C3. The degree is predominantly C4. At the same time, both the diploma and the degree are at a high level of cognitive demand. The Chemistry staff noted that this distinction has been the subject of much debate and the focus of current rearticulation. The diploma, which started off as a “strongly technical programme” has in recent years experienced an “academic drift”. This “drift” has been picked up by industry who have complained that the technical training of the diploma graduates is “not as strong as it should be” and that “theory had taken the place of practice”.¹⁴ There is thus a concerted attempt to clearly distinguish the diploma from the degree in current curriculum review processes. One staff member noted that the logic of the diploma is that the C4 provides conceptual foundations for progression in C3. The relationship between conceptually and procedurally oriented curricula is something which requires further exploration in all the case studies.

The Chemistry case study provides an interesting example of a diploma and degree which are clearly differentiated in terms of their curriculum type, and both are at a cognitively demanding level. With respect to articulation between the diploma and the degree, it is possible that the strong conceptual foundations of the diploma could make articulation from Year 1 of the diploma into Year 1 of the degree possible, but only for a very strong student. The distinctive nature of these qualifications suggests that articulation from one to the other is not a priority curriculum issue.

¹⁴ Comments made by Chemistry staff in the NMMU SANTED workshop held on 20 September and follow-up e-mail conversation with Prof. Eugen Straeuli, 20 October 2010.

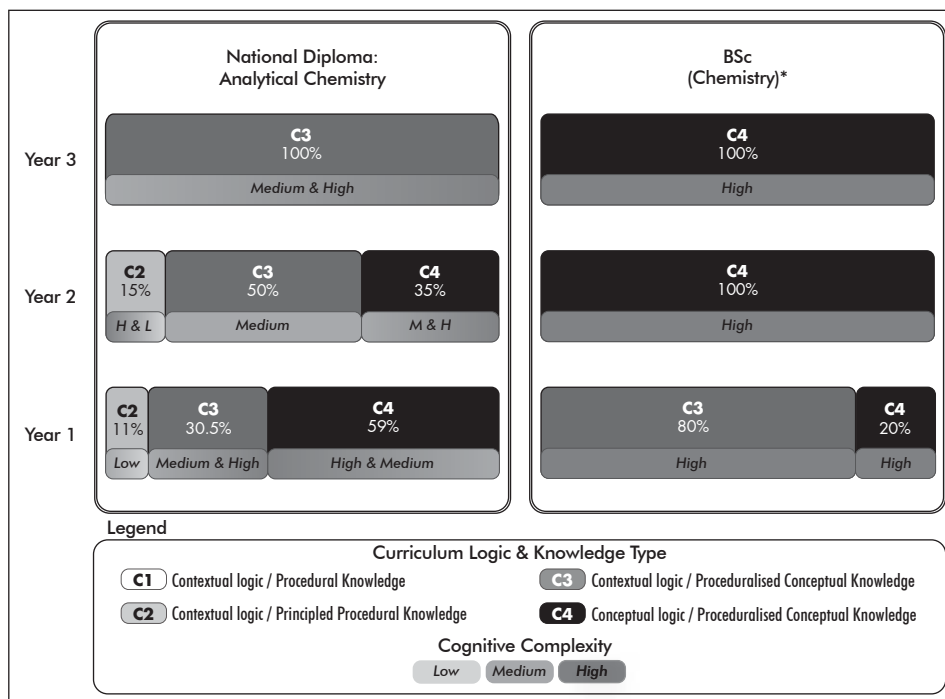


FIGURE 4.5 National Diploma (Analytical Chemistry) / BSc (Chemistry): selection and sequencing of curriculum type

ARCHITECTURE: NATIONAL DIPLOMA (ARCHITECTURAL TECHNOLOGY) AND THE BACHELOR OF ARCHITECTURAL STUDIES

Selection of curriculum type (see Figure 4.6)

In the National Diploma (Architectural Technology):

- The overall curriculum logic is contextual with a high proportion of C2 and C3 across all three years (C2: 26% in Year 1, 36% in Year 2, 29% in Year 3) (C3: 57% in Year 1, 44% in Year 2, 71% in Year 3).
- There is a relatively low proportion of C4 in Year 1 and 2 (17% in Year 1, 20% in Year 2).

In the Bachelor of Architectural Studies:

- The overall curriculum logic is contextual with a high proportion of C2 and C3 in all three years of the programme (C2: 19% in Year 1, 10% in Year 2, 5% in Year 3) (C3: 66% in Year 1, 73% in Year 2, 75% in Year 3).
- There is a relatively higher proportion of C4 than the diploma (15% in Year 1, 16% in Year 2 and 20% in Year 3).

Sequencing of curriculum type

In the National Diploma (Architectural Technology):

- There is no clear evidence of increasing cognitive complexity with respect to C3 and C4, only C2 from medium (in Year 1 and 2) to medium and high in Year 3.
- In the degree (BAS):
- There is no clear evidence of increasing cognitive complexity in C2, C3 or C4 knowledge types over the three years of study.

Implications for progression and articulation

This case study raises a number of interesting questions and issues which require further exploration. The graphic for the diploma and the degree appears at a glance to be very similar. One of the key distinctions is in the C4 modules – the design theory modules. In both the diploma and the degree they are coded at medium level of cognitive complexity. The degree however requires architectural theory across all three years, while in the diploma architectural theory is offered in Year 1 and 2 only. Furthermore, the number of credits allocated to theory in Year 1 and 2 is greater in the degree. The feedback from the staff suggests that there is also a fundamental distinction in the nature of the design knowledge which would make articulation “very difficult”. These differences were articulated in terms of differences in “core knowledge”. The diploma’s core knowledge was articulated as “How do you resolve a building problem technically and communicate this to a client?” whereas the degree’s core knowledge is based on the “creative conceptual thinking of design”.¹⁵

¹⁵ Architecture staff comments at the SANTED NMMU workshop, 20 September 2010.

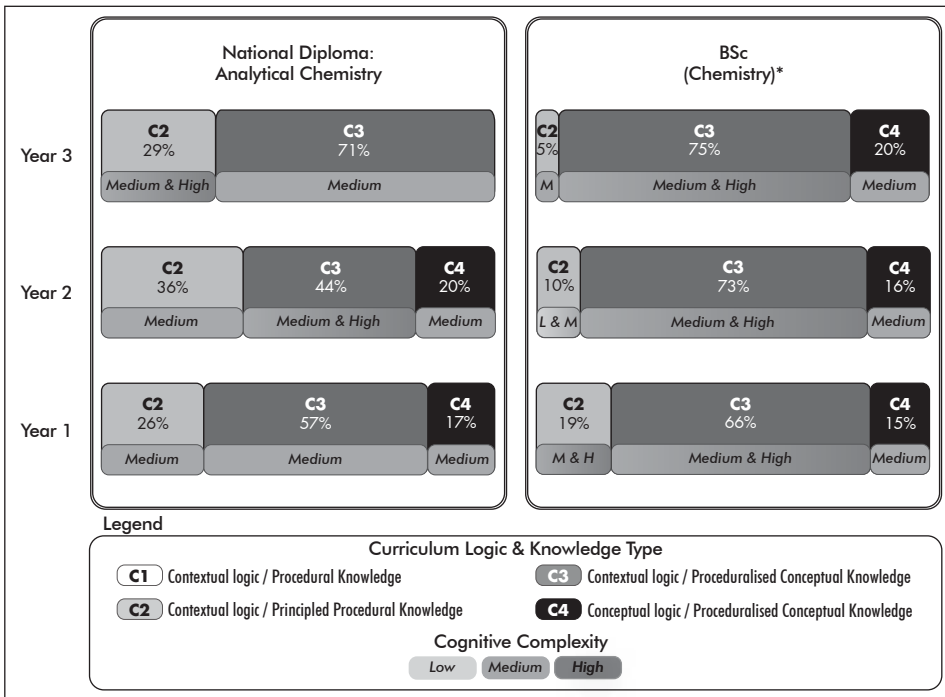


FIGURE 4.6 National Diploma (Architectural Technology) / Bachelor of Architectural Studies: selection and sequencing of knowledge and curriculum type

IMPLICATIONS FOR CURRICULUM DESIGN IN HIGHER EDUCATION

Emerging from the analysis there are some key principles for curriculum design which we offer as a contribution to the debates on differentiation, progression and articulation. These principles are preliminary and need to be tested in further case study analysis. We focus in particular on some of the key considerations for the design of strong diploma curricula.

Wheelahan (2010) argues that theoretical knowledge must be at the centre of all higher education qualifications, including vocational ones. The reason is that access to theoretical knowledge is a matter of distributional justice: if students are denied epistemic access they will ultimately be denied social access. In terms of the case studies provided above, concerns were raised about the Journalism diploma with its paucity of conceptual knowledge. Not only does this pose problems for progression to postgraduate studies and, if relevant, articulation to the degree, but it raises questions about the kind of graduate that would emerge from this diploma with respect to the critical demands of the journalism profession. Thus, in agreement with Wheelahan, this study underscores from an empirical basis that curricula in the higher education band should have a certain proportion of modules with conceptual knowledge of the

C3, C4 or C5 type. One of the implications of this is that if a diploma does not have some proportion of C3 or C4 modules then it should not be in higher education. Exactly *what* proportion is something that requires further investigation and may be programme specific.

This principle, as well as the knowledge and curriculum distinctions that emerge from the case studies, suggests one way in which we might conceptualise differences between vocational, professional and general-formative programmes. There may be vocationally oriented programmes that are predominantly constituted by procedural or principled procedural knowledge, i.e. they have C1/C2 as their core. Their principled base emerges out of procedures and increasing complexity is achieved by more complex contexts of application. We would argue that these qualifications do not constitute higher education but would be more appropriately placed in further education. However, there may be other vocationally oriented programmes such as diplomas that are constituted by principled procedural and proceduralised conceptual knowledge, i.e. they have C2/C3 as their core. Their purpose would be distinct from professionally oriented programmes which are predominantly constituted by conceptual or proceduralised conceptual knowledge, i.e. they have C3/C4 as their core. Their principled base emerges from a conceptual or theoretical knowledge base and increasing complexity is achieved by increasing conceptual complexity and ensuring more complex contexts of application. These qualifications would lead right up to professional master's and doctoral level. General formative programmes may be defined as curricula that are predominantly constituted by conceptual knowledge, i.e. they have C4/C5 as their core. Their principled base emerges from a conceptual or theoretical knowledge base and increasing complexity is achieved predominantly by increasing conceptual complexity. These qualifications would also lead right up to master's and doctoral level.

With respect to this conceptual knowledge core, the case study analysis highlights some particular challenges for vocationally and professionally oriented curricula. Professionally oriented curricula such as the Diploma in Analytical Chemistry have a conceptual base with what Bernstein (2000) calls a hierarchical knowledge structure; there is thus less contestation about what is relevant. Those curricula such as Journalism and Media Studies have their conceptual base in horizontal knowledge structures; this is a less explicit conceptual base. They need to 'borrow' theory and concepts to build a conceptual base and there will be more contestation about what is legitimate. This suggests that the most vulnerable diplomas in terms of conceptual development are likely to be diplomas in the soft, applied sciences.

With respect to issues of progression – that is the increasing complexity from Year 1 to Year 3 – the analysis points to some key design principles. The design needs to ensure some degree of increasing cognitive complexity in the core curriculum type, i.e. C2, C3, C4, so that the curriculum expectations are at a high level of cognitive complexity by the end of Year 3. This is a particular challenge for the diploma which typically

has a work-integrated learning component in the final year. Further investigation is needed into the extent to which these experiential learning components are cognitively demanding. Particular attention needs to be given to Year 1 and its progression from school level and Year 3 and its progression to postgraduate studies. With respect to Year 1, curriculum designers need to ensure that the necessary conceptual building blocks are in place for successful progression. With respect to progression to postgraduate studies from a diploma or degree, this will require some proportion of C4 or C5, especially in the final year.

Contrary to the political ideals of the NQF, the prospects of systemic articulation pathways from diplomas to degrees are not very promising. The key principle is that an articulation pathway between a diploma and a degree must be based on some consistency in curriculum typology. In other words, a diploma that is predominantly C2 will not articulate with a degree that is predominantly C3 or C4. Even where there is a significant proportion of C3 in a diploma, the articulation pathway into the degree (where there is significant C3 and C4) may require a 'bridge'. Given these realities it may be that at this stage the issue of articulation should not be the key driver for curriculum change for the comprehensives. Priority should rather be given to reforms which will firstly, strengthen differentiation of purpose between the diploma and the degree, and secondly, enable progression particularly at the school-university point.

CONCLUSION

The insights afforded by this research have significance beyond the concerns of comprehensives universities. While there is further work to be done, we believe that there are important implications for the South African higher education sector as a whole. The HEQF that was promulgated in 2007 is currently in a process of review and phased implementation. Work in progress on qualification descriptors and articulation and progression arrangements can usefully draw on the empirical findings offered in this chapter. The research also holds significant implications for the design of the South African post-secondary sector which is currently an important priority for the national Department of Higher Education and Training (Cosser 2010). In particular, the research provides perspectives on curriculum design and articulation possibilities within a restructured post-secondary system. Furthermore, with respect to current debates on institutional differentiation, nationally as well as internationally, this research can provide helpful perspectives on curriculum differentiation as an important dimension of the debate relating to both external and internal differentiation. The central argument of this chapter is that differentiation debates – whether focused on curriculum, programme, qualification or institution – must pay attention to knowledge.

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5

UTILITARIANISM AND THE FATE OF HUMANITIES IN SOUTH AFRICAN HIGHER EDUCATION

THE WITS EXPERIENCE

Fatima Adam & Michael Cross

INTRODUCTION

The humanities are plagued with concerns about their survival in the context of an increasingly market-driven society in which education has become a commodity that is valued more for its links to economic and political utility and less for its links to citizenship, cultivation of the mind and other intrinsically driven imperatives. While all higher education fields are faced with this dilemma, the humanities are most affected because of their traditional emphasis on highly intrinsic educational outcomes. A case study was undertaken to explore the implications of this new socio-political and economic environment for curriculum transformation at the Faculty of Humanities at the University of the Witwatersrand (Wits). In this chapter we argue that there is a shift toward utilitarian curriculum discourses in the Faculty. However this shift occurs in complex ways and is not easily predictable.

In current debates utilitarianism demarcates the epistemological and pedagogical boundaries between two distinct curriculum discourses playing out in the humanities. The first is bound up with the tradition of liberal arts education associated with the 'ivory tower' conception of the university as an institution above the social order and Eurocentric conceptions of knowledge characterised by principles and values such as the enculturation of the mind (Sanderson 1993), disinterested pursuit of knowledge or knowledge as an end in itself (Muller 2000), discipline-based knowledge (Sanderson 1993), citizenship education (Enslin 2003), and critical thinking and personal autonomy (Tsui 2002). In an attempt to explain this perspective, philosopher Michael Oakshott¹⁶ (2004, cited in Fish 2009) suggests that "there is an important difference between learning which is concerned with the degree of understanding necessary to practice a skill, and learning which is expressly focused upon an enterprise of understanding and explaining". Taking this further, Fish (2009) proposes on his blog that this encompasses

¹⁶ Oakshott M. 2004. The character of a university education. In: L O'Sullivan (ed). 2004. *What is history and other essays*. Imprint Academic. 383.

“understanding and explaining anything as long as the exercise is not performed with the purpose of intervening in the social and political crises of the moment, as long, that is, as the activity is not regarded as essentially instrumental – valued for its contribution to something more important than itself” (Fish 2009). This perspective has been increasingly under attack for its perceived in-utility and irrelevance in the face of the challenges facing contemporary societies.

The second is the emerging trend which calls for a more engaged conception of higher education and judges its value with reference to their relevance and direct links to the social and economic world. In this perspective, higher education is compelled to abandon its ivory tower, insular, distant and abstract characteristics for one that is more responsive to and closely aligned with the needs of society. Driven by both economic and political imperatives, this increased focus on responsiveness has led in many instances to a shift from mode 1 to mode 2 knowledge approaches (Gibbons, Limoges, Nowotny, Schwartzman, Scott & Trow 1994), from academic/theoretical to ‘professional’ programmes that prioritise curricula with a focus on skills, application and problem solving, with profound implications for the arts and the humanities.

These perspectives have fuelled debates about the survival of the humanities in higher education settings. For some the new generation of universities must become more intricately linked to industry and society needs, producing the requisite skills and competencies to contribute to the economy (Dovlo 2007). However, for others this ethic of productivity and efficiency – the ultimate expression of utilitarianism – destroys some of the key elements of what it means to be educated in a socially complex and ever-changing society. Opponents of the narrowly constructed instrumentalist perspective believe that educational goals must be broader than merely to fulfil the immediate needs of society. Thus the focus must also be on knowledge development as an end in itself and on broader societal goals such as critical thinking and reasoning. Many opponents of the economically driven utility discourse believe that fields deemed impractical in social and economic terms run the risk of being deemed unnecessary; and academic specialists in these fields may “come to be seen by everyone (not just those outside the academy) as unaffordable anomalies” (Donoghue 2008:69). This, it is argued, will lead to the decline of the humanities as a knowledge form and severe battles for its survival. Titles such as *Bonfire of the Humanities* (Hanson, Heath & Thornton 2001), *The Demise of the Humanities Department* (Tapp 1997), and *Crisis in the Humanities* (Perloff 2001) are testimony to the deep concern for the survival of the humanities. However, it must be noted that there are those who consider the ‘crisis of the humanities’ as an unwarranted overstatement.¹⁷

In this chapter we explore whether the Oakeshottian ideal can still flourish in the humanities in today’s South African academic context. If not, what possibilities or opportunities are available for the future of the humanities? We address this question

¹⁷ In fact, John Searle (1990:1) said, “I can recall no time when American education was not in crisis.”

with reference to the experience of the Faculty of Humanities at Wits. In doing so, we argue that while Donoghue's claim about the shift toward utilitarian practices in the humanities is gaining momentum in South African higher education, this shift occurs in varied ways, resulting in a number of different curriculum outcomes. It challenges the claim about the decline of the humanities. It suggests that, rather than a decline, the Wits experience can better be described as that of recomposition of the field of the humanities as expressed in the combination of disciplinary and interdisciplinary approaches, integration of mode 1 and mode 2 of knowledge (theory and application concerns) and increasing professionalisation of certain domains of knowledge. It shows that curriculum reform is the result of a complex interplay of a number of external (markets, student needs, efficiency) and internal (disciplinary identity, structure of discipline) factors whose outcomes are not easily predictable. However we do raise concerns about the fact that some programmes will be lost in the process and also that in extreme cases the utilitarian agenda can undermine some of the principles and practices that are renowned in the humanities, and in so doing destroy the essence of the humanities.

MARKETS, SOCIETY AND DISCIPLINARY 'GRAMMAR' IN CURRICULUM CHANGE

Generally, the literature indicates that there are significant curriculum reform processes underway in higher education, as a result of new trends in the world economy and recent socio-economic and political pressures. While higher education has always undergone changes as societies change, the sector seems to be experiencing more significant and fundamental changes than previously. The key claim emanating from the literature proposes that the new socio-political and economic context requires higher education to become responsive and relevant to the needs of society (Beck & Young 2005; Castells 2001; Gibbons 2000; Kraak 1997). This is the result of the increased dependence of the economy on knowledge, and the increased pressure for higher education to support the needs of the global economy by producing the 'high skills and high knowledge' required to serve the economy in the 21st century and the calls to improve efficiency and productivity in higher education. This pressure to strengthen relationships between higher education and workplace needs and higher education and society raises two contesting views about the goals and purpose of higher education which is underpinned by the notion of utility.

Utilitarianism here has been adapted from sociological theories that refer to its relationship with economic or pragmatic viewpoints linking the whole of social action to instrumental rationality (Duncan 2008). In curriculum circles it refers to an instrumentalist view of education that focuses on the use of education in the society rather than being an end in itself. Duncan (2008:26) points out that in this approach

[p]olitical, economic and commercial strategy takes over as the very *raison d'être* of the university; and the languid atmosphere of impartial scholarship and scientific curiosity is infected by the competitive quest for money and power ... For those in higher education, this political development is a double-edged

sword. On one hand, it allows us to promote the benefits of education and research in 'hard' economic, as well as social and cultural, terms. This gives greater political weight to arguments for enhancing student participation rates, investing in research, and maximizing the commitment of public finances to tertiary education. On the other hand, such a utilitarian economic discourse on the value of knowledge and higher education will undermine the traditional ideal of a disinterested and impartial pursuit of 'truth', and hence pose a threat to academic freedom.

This shift toward utilitarian discourses in higher education reflects the increasing influence of externally driven factors in the sector. Factors driving curriculum can be divided into two main categories: (1) intrinsic or internal factors directly related to the content knowledge and its epistemological basis; and (2) extrinsic factors or those arising out of external pressures, as well as global, national and institutional factors, or those related to the academic actors involved. Thus while higher education has always been influenced by both extrinsic, as well as intrinsic factors, extrinsic factors have become increasingly dominant in driving curriculum change.

Extrinsic factors have become much more influential in driving curriculum reform processes and outcomes than in previous centuries. Thus the academic community and the discipline are no longer the key determinants of curriculum in higher education. Today, external drivers such as political and economic factors seem to play an equally important role in determining the outcomes of higher education offerings. While this pressure exists across faculties, Humanities is particularly affected because its curriculum has generally been underpinned by traditional liberal education which focused heavily on the *inner*. Thus the faculty has been associated with education that is aimed at cultivating cultural, social and political understandings and not at serving extrinsic needs (McCabe 2000).

Underpinning debates on extrinsically versus intrinsically driven curriculum reform is the idea of *utility* embedded in utilitarian discourses, i.e. discourses that advocate direct benefits of higher education to the individual and society beyond the cultivation of the mind based on humanist enquiry for its own sake. As an instrumentalist discourse, utilitarianism vacillates from narrow emphasis on economic benefits focused on utility-based knowledge related to the world of work and pragmatic skills-based approaches (Kraak 2000:14) to the emphasis on wider societal benefits in terms of inculcation and promotion of social values such as human rights, social justice, equality and equity.

It must be noted that while the literature offers relatively clean demarcations between extrinsic and intrinsic factors, Frank and Gabler (2006) offer a more complex and messier framework with regard to this debate. They argue that while external drivers such as markets and policy have come to play a critical role in curriculum change, these changes are also driven by intrinsic factors related to the changing conceptions of what constitutes valid knowledge in society (e.g. the conception of cosmology and ontology) (Frank & Gabler 2006:20). In this regard, they show for example that when the arguments on creationism were superseded by the theory of evolution as an

explanation of existence, the curriculum changed accordingly. Furthermore, the rise of egalitarianism and its prominence over traditional authoritarian structures in society affected the nature of knowledge in the humanities. For example, knowledge shifted from a focus on ‘gods and masters’ to a focus on knowledge of ordinary people and democratic practices. Frank and Gabler (2006) suggest that in History, for example, this meant that a curriculum with a focus on kings and a few powerful men no longer had currency. Instead a curriculum that recognises the capacity and power of ordinary citizens to act took precedence (Frank & Gabler 2006:20). This shift to ordinary citizens with the capacity to act and influence their lives has increased the power of education that is able to explain and influence everyday life, i.e. the utilitarian discourse gained status and momentum in defining what constitutes knowledge.

In terms of curriculum, the differences reside on the emphases of the knowledge approach as illustrated in Table 5.1 below.

TABLE 5.1 Characteristics of the knowledge discourse

Traditional approaches to knowledge	Utilitarian approaches to knowledge
Disciplinary	Inter- and multi-disciplinary
Pure	Applied
Conceptual and theoretical	Contextual
Critical thinking	Problem solving
Theory	Skills and competence
General	Specific
Not necessarily linked to work	Directly linked to work

Thus, universities that once prided themselves on discipline-based knowledge underpinned by an emphasis on academic, theoretical and conceptual enculturation, and privileged particular modes of analysis and modes of argumentation based on a mastery of discipline-rooted concepts, are turning to skills development and workplace readiness (Ensor 2002:274; Gibbons *et al* 1994; Scott 1997). These emerging approaches represent a challenge to the long-standing practices associated with programmes in the arts and humanities. Opponents of these approaches point to the danger that the new emphases pose to the purposes of the humanities or liberal arts education (Readings 1996).

We must stress, however, that the comparison in the table is just a heuristic model through which to make sense of what appears to be a more complex and messy institutional curriculum scenario at Wits. The dichotomies are not always reflective of the complexity; they appear revealing in so far as they highlight emerging trends. Different schools and different disciplines experience curriculum pressures in different ways depending on their institutional context, disciplinary strengths or the sense of identity associated with their field, which give rise to different curriculum discourses and practices (Muller 2003). One must caution against explaining these changes through totalising discourses that overlook historical specificity and contextual complexities.

CURRICULUM DISCOURSES AND TRENDS AT THE UNIVERSITY OF THE WITWATERSRAND

This chapter was drawn from the data of a case study of the Faculty of Humanities conducted as part of a PhD at Wits University (Adam 2009). Since the Faculty represented a large entity, decisions had to be made about what 'slice' of the entity would be selected for detailed investigation. An attempt was made to combine both breadth and depth of data collection strategies.

This study sought to explore curriculum reform practices and trends in the Faculty of Humanities at the University of the Witwatersrand in the context of the drive toward utilitarian curriculum practices. The Faculty of Humanities comprises five schools (Arts, Education, Social Sciences, Community and Human Development and Language and Literature). The study comprised an analysis of relevant documents, as well as interviews with staff members in the different schools and departments and it combined a breadth and depth approach by focusing broadly on all five schools and more specifically and in greater detail on the School of Social Sciences and the School of Education.

CONTINUUM OF DISCOURSES: FROM TRADITIONAL TO UTILITARIAN

The ultimate question is: Has the Faculty of Humanities at the University of the Witwatersrand remained the same as it has been since its inception or has it transformed radically into something else? The Faculty of Humanities at the University of the Witwatersrand can no longer be defined by the traditional liberal arts discourse that characterised it since its inception. It now has a range of curriculum responses and outcomes that can be located on a continuum from the traditional liberal discourse to the utilitarian discourse. The nature and extent of these shifts vary across schools and programmes and their relationship to the old traditional form also varies. Thus while it cannot be defined by its traditional liberal form, it also cannot only be defined by utilitarian approaches. Analysis of the data suggests that the faculty is a complex mix of ideas and identity that spans from the traditional liberal discourse to the utilitarian discourse. Even within these discourses there are variations of outcome.

Historically, the humanities has been a privileged disciplinary field in English-medium universities, particularly at the University of the Witwatersrand, while in Afrikaans-medium and historically black universities, main centres of diffusion of the conservative Afrikaner Christian Nationalist ideology, humanities became academic disciplines designed to pursue apartheid ideological indoctrination. In English-medium universities, radical scholarship in its neo-Marxist and Africanist strands (e.g. the Black Consciousness movement), found a home in the humanities which managed to focus on the anti-apartheid project while also celebrating the ideals of liberal arts education.

Recently, however, the university has explicitly embraced utilitarianism. The institution's mission statement 'Shaping the Future'¹⁸ calls for a balance between academic and

¹⁸ Framework for academic restructuring, 2000, University of Witwatersrand, S2000/125:1.

professional concerns which foregrounds the link between education and the labour market. This has triggered a multiplicity of responses at curriculum level: “There’s huge heterogeneity across the faculty.”¹⁹ Variations are considerable across schools, departments or individuals, as shown by the responses quoted below:

I think that the curriculum reform pressure is very uneven in different disciplines. ... there were major reform periods locally in certain disciplines ... that in other disciplines were not felt to the same extent ...²⁰

Again, you can’t look at the school as a unitary grouping.²¹

These curriculum-related responses can be located within a continuum from a traditional humanities curriculum with emphasis on liberal arts education to a heavily utilitarian curriculum, driven by utility and market responsiveness concerns. Thus there are programmes that operate within a strict disciplinary knowledge basis and have generally maintained their ‘old’ traditional approach. These are concerned with the idea of higher education as the enculturation of the mind, which widens opportunities for self-development, self-enrichment and self-fulfilment in society and the preparation of the individual for the world of work within the framework of the traditional liberal arts education (e.g. philosophy, anthropology). There are programmes that attempt to combine utility approaches with the traditional academic approach in a somewhat hybrid mode (see Figure 5.1). This has led to an increasing professionalisation of the humanities curriculum with the introduction of four-year BA professional programmes in fields such as Law, as well as market-oriented courses such as ICT in Humanities, History and Tourism, Heritage Studies and so forth. There are also programmes that are increasingly driven by narrow market (income-generation) or interventionist concerns particularly in professional education schools.

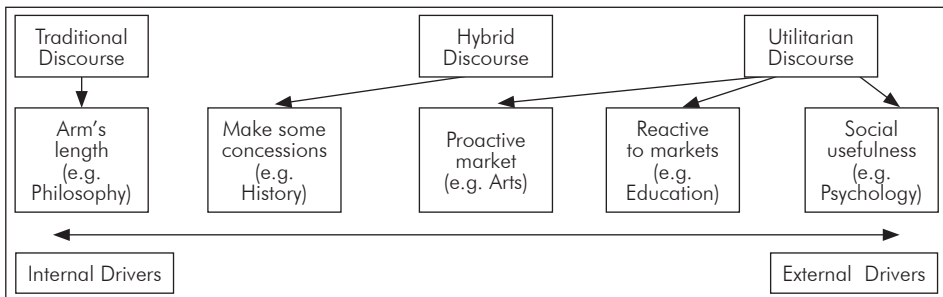


FIGURE 5.1 Continuum of discourses in the faculty

¹⁹ Interview, School of Social Sciences, 7 February 2007.

²⁰ Interview, Faculty management, 29 March 2006.

²¹ Interview, Faculty management, 15 February 2006.

One of the key manifestations of this reform process is the implication it has for the ways in which the disciplines are reconstituting themselves. While at the undergraduate level the discipline remains the key organising unit of knowledge in the faculty,²² disciplines are transforming in various ways to meet new socio-economic and political needs. This has resulted in a number of changes in the faculty, including the expansion of programmes in some disciplines, the closure of programmes in other disciplines, the development of new curriculum in more applied and skills-based disciplines, and the emergence of new interdisciplinary programmes.

Financially viable disciplines or those with strong identities are generally in a stronger position to be proactive about where they would like to position themselves on this continuum, while disciplines that are faced with financial difficulties and have weak identities tend to be reactive to the context and stand a chance of making more compromises along the way. Generally the changes informed by these discourses range from departmental closures, abeyance or discontinuation of courses, modularisation or repackaging and proliferation of courses, interdisciplinarity and thematic reconceptualisation of curriculum, regionalisation and recontextualisation of disciplinary knowledge. We look at these trends in more detail in the following sections, starting with a schematic representation in Table 5.2.

TABLE 5.2 Summary of trends across the faculty

Summary of trends	Examples
Programme, discipline and course closures	<ul style="list-style-type: none"> ▪ Religious Studies Department ▪ History course on British Politics and Government 1760-1784 ▪ History of Education course
Modularisation, repackaging and course proliferation	<ul style="list-style-type: none"> ▪ Sociology offered 11 additional modules between 1999 and 2005
Regionalisation, inter-disciplinarity and thematic approaches	<ul style="list-style-type: none"> ▪ Heritage Studies ▪ Forced Migration ▪ Journalism, Media Studies ▪ Policy and Management Studies in Education ▪ Film and Documentary History ▪ Democratic Citizenship and Human Rights Education
Genericism	<ul style="list-style-type: none"> ▪ Workplace readiness courses: presentation skills, time management, and communication skills at Graduate School of Humanities

²² For example, Psychology is very popular with students.

Summary of trends	Examples
Commodification (professionalisation or vocationalisation of humanities curriculum)	Promotion of short courses strategy for income generation: <ul style="list-style-type: none"> ▪ Business English ▪ Professional development (local government, finance and budgeting, etc.) ▪ Market-driven modules ▪ Sociology of Health and Illness ▪ IT in Humanities

UNVIABLE PROGRAMMES, DISCIPLINES AND COURSES CLOSE DOWN

Between 1995 and 2005 Wits terminated and rationalised a number of modules, programmes and departments. In some instances, these changes were a result of market-driven, proactive shifts in strategy-applied conceptions of knowledge (mode 2), while in other instances they were reactive responses to low student enrolment inspired by financial sustainability concerns. In the Faculty of Humanities, at least three departments were closed: “They closed the under-subscribed divisions such as Classics, Afrikaans and Religious Studies”.²³ Besides the perceived low work-utility value, which might have accounted for their demise, department-specific reasons seem to have been behind their closures too. For instance, the programme on Afrikaans could no longer be justified in the light of the new language policy that recognises all other national languages, and thus removed its privileged status as one of two official languages in the country, let alone its negative connotations because of its association with apartheid and its low currency at the international level. While Frank and Gabler’s (2006) study uses staff retrenchment and employment trends as an indicator of the flourishing or demise of the disciplines, the staff retrenchment that accompanied this process was very minimal. Therefore it cannot be used as an indicator of changing curriculum at Wits. Here loss of expertise due to staff mobility or re-specialisation has negatively affected curriculum offerings.

Similarly, Religious Studies²⁴ faced a number of challenges to survive. The Religious Studies department was one of the biggest departments in the Faculty of Arts until the early 1980s. It “thrived during the 1980s for both political and vocational reasons”.²⁵ However, this changed drastically from the 1980s to the 1990s as interest in the discipline declined sharply.²⁶ This is attributed to a number of factors. First, the programme shifted from Theology to Religious Studies in order to become relevant to a diversity of religions instead of just Christianity. As a result, Religious Studies shifted from a professional focus as a Christian-based vocational preparation to a broader

²³ Interview, Institutional management, 11 March 2005.

²⁴ It must be noted that information on Religious Studies was based on only one interview since all other staff are no longer at the university.

²⁵ Interview, Social Sciences, 5 December 2007.

²⁶ Interview, Social Sciences, 5 December 2007.

programme with a general focus.²⁷ The shift toward increased generality and reduced specificity and professional emphasis collided with the emerging utilitarian discourse. As Frank and Gabler (2006:91) have indicated, Religious Studies were “ceding territory to new age religions” and focusing on wider more inclusive curricula. Second, in the past Religious Studies constituted a highly politicised domain and an important vehicle through which both apartheid and anti-apartheid scholars engaged with the political terrain, though more vulnerable to apartheid manipulation: “[T]he discipline was tainted by the apartheid project.”²⁸ The role of religion in politics seems to have declined after apartheid. Third, Religious Studies at Wits did not have the advantage of senior and powerful academic authorities who could lobby for its continued existence:

Religious Studies did not have the big names to fight its case of survival in the new efficiency context. For instance, History’s survival was partly influenced by the presence of big names like Phil Bonner and Colin Bundy.²⁹

Fourth, it has also been suggested that “the Faculty of Arts at Wits was strongly Marxian and did not have much concern about its closure.”³⁰ In this context, a proposal was put forward to save the discipline by providing service courses to other disciplines and by providing certificate-type programmes on religious issues to the wider public. This was declined and Religious Studies eventually closed down. Finally, Religious Studies also suffered from the fact that some of its more contemporary debates had been incorporated into other disciplinary fields such as History and Political Studies, as the thinning of boundaries between disciplines in the humanities (Bernstein 1971) opened spaces for redefining and reconstituting the disciplines.

With few exceptions the trends in Religious Studies at Wits are echoed in other institutions in South Africa and around the globe. Driven by a strong academic leadership, the programme at the University of Cape Town (UCT) has secured its survival. Some Afrikaans universities re-focused on ethics. The Iranian government supports the University of South Africa (UNISA) in providing a programme in Islamic studies, and the Lutheran Church supports a programme in religious studies at the University of KwaZulu-Natal (UKZN) to meet its professional needs.³¹ Elsewhere in the world Religious Studies or Theology lost more than half of its original space in university education between 1975 and 1995, which has led Frank and Gabler (2006:105) to suggest that society has shifted away from divine capacities and the power of god and religion in shaping their lives and providing the truth.

Nevertheless, despite these closures, some vulnerable disciplines were able to weather the storm. Therefore even though some disciplines were facing closure for not breaking

²⁷ Interview, Social Sciences, 5 December 2007.

²⁸ Interview, Social Sciences, 5 December 2007.

²⁹ Interview, Social Sciences, 5 December 2007.

³⁰ Interview, Social Sciences, 5 December 2007.

³¹ Interview, Social Sciences, 5 December 2007.

even, they enjoyed institutional protection in spite of their vulnerability and/or instability. The reasons are again varied, ranging from their perceived national importance or strong academic histories to their political or strategic significance – reasons beyond narrow market-related explanations. Two respondents highlighted this aspect when asked, ‘When do you decide to close down disciplines or programmes?’:

You have to look at financial viability. And a whole series of questions arise about intellectual viability and contribution. That’s a complicated answer which I cannot answer fully now, but finances cannot be the only basis for closing courses.³²

... It’s not just mechanical break-even or you are out. Because we are a university ...³³

African Languages best represents this case. It has experienced poor student enrolment over the past ten years, given its fragile economic standing compared to English as lingua franca,³⁴ which many students associate with success and economic currency (CHE 2010). Some students went to the point of stating that the curriculum of African Languages is neither relevant nor interesting to students.³⁵ Despite its difficulties, in 2001, during the restructuring of the faculty, the university agreed that African Languages should be restructured and continue to be offered because of its national importance.³⁶ As African languages were marginalised during the apartheid era, the university has put into place a range of policies to validate, protect and promote studies in African languages in line with current national policy.

The protection of African Languages is the result of political imperatives that override efficiency and market pressures. For historical reasons, many students have not yet discovered the value of studying African languages. Within the University, programmes in African Languages are not regarded as cost-effective in terms of staff-to-student ratio, nor as academically sound in their research output.³⁷ Despite these reasons, the university decided that they should not be closed down but restructured to attract students, given their national importance. Similarly, History survived the storm despite its low student enrolment, staff retrenchments and the difficulties in breaking even financially. This could also be attributed to the political importance of History and the prestige of the History department as an important critical intellectual space in the South African academic context. Like African languages, History is undergoing

³² Interview, Faculty management, 10 June 2005.

³³ Interview, Faculty management, 10 June 2005.

³⁴ In fact, the top-rated universities are all English-medium because research currency is measured through English-language journals. According to the Times Higher QS world ratings, the dominant language of research is English and as a result only one non-English-speaking institution qualified for the top 200 university rankings (Harris 2007).

³⁵ Interview, Institutional management, 14 March 2006.

³⁶ Humanities, review (2006:29).

³⁷ Report on the Faculty of Humanities review, 2006. University of the Witwatersrand, S2006/2573.

an internal restructuring and adaptation to the new academic environment. These examples highlight the fact that it is not possible to assess curriculum change only on the basis of business accounting. This is not to downplay the significance of economic imperatives. Economic responsiveness remains the primary driver of curriculum reform. Within the Wits utilitarian discourse, economic responsiveness is increasingly superseding other forms of usefulness. This means that, though these fields of study have not been closed down, they face severe pressure to swell student numbers and increase their research output at limited costs, all of which have implications for their future sustainability.

MODULARISATION, REPACKAGING AND COURSE PROLIFERATION

Generally, the literature indicates that the number of degrees, disciplines and courses offered at higher education institutions across the globe has increased substantially and has outstripped programme closures or discontinuations (Becher & Trowler 2001:14; Kletz & Pallez 2002:59; Manns & March 1978:544). Becher and Trowler (2001:14) suggest that the proliferation of disciplines and sub-disciplines should not be underestimated in the macro analysis of higher education curriculum transformation. The Faculty of Humanities at Wits reflects this trend, manifested through more extensive modularisation, programme renewal and course proliferation. Course and programme offerings have increased across the institution; the growth of offerings in the humanities far exceeds that of other faculties. It is estimated that the Faculty of Humanities has approved approximately 150 courses per year (over the past three to four years), which is more than the total number of new courses and programmes developed in all other faculties combined, a trend that outstrips course closures.³⁸ These courses are located within as well as outside of traditional disciplines and reflect an attempt to integrate contemporary skills and application-based approaches into the curriculum. For some it was about proliferating “courses that were going to be sexy”³⁹ and attract students.

Underpinning modularisation was a repackaging strategy designed to match the content of the programmes with student interests. Here is an example: Popular in the 1970s and 1980s was radical social history perceived as equipping students with an ideological basis to resist against apartheid (Ludlow 2006:30). When this history lost its significance in this regard, and student enrolments dropped substantially, the History department responded by redesigning its first-year courses to focus on more contemporary issues, perceived as more appealing to students.⁴⁰ It repackaged the first-year curriculum into a course called ‘Living with the USA’,⁴¹ which focuses on ‘the third world’ and the evolution of Africa and India after World War 2, as well as the

³⁸ Informal interview with Kamal Bhagwandas, project coordinator of the Faculty of Humanities Course and Programme Development, Academic Planning Unit, 10 July 2007.

³⁹ Interview, Institutional management, 11 March 2005.

⁴⁰ Interview, Social Sciences, 8 March 2007.

⁴¹ Social Sciences handbook, Undergraduate studies, 2004.

so-called 'hotspots' and 'rivals' such as the Middle East and China. In line with Frank and Gabler (2006:178), at Wits, too, the "university History curriculum grew more presentist" over the decade, which also explains why History weathered the storm and only declined slightly when compared to other disciplines in the humanities (Frank & Gabler 2006:174).

However, while Frank and Gabler (2006) suggest that this trend has led to the decline of the humanities worldwide and the growth of the Social Sciences, as we have argued elsewhere (Cross & Adam 2011), the humanities⁴² in South Africa have been the object of internal reconstitution and programme repackaging rather than decline. Neither is the demarcation between the social sciences and the humanities a clear-cut one in the Wits case. The Wits case suggests that disciplines are reconstituting themselves in disciplinary and interdisciplinary ways by focusing on skills and application-based curriculum. However, the nature and extent of this reconstitution varies depending on the different disciplines, their financial and academic stability, and the internal structure of the discipline itself.

REGIONALISATION, INTER-DISCIPLINARITY AND THEMATIC APPROACHES

'Regionalisation' is the term used by Bernstein (2000) to describe ways in which disciplines coalesce around thematic or topical concerns or come together to focus on fields of practice with a new identity, a key feature of current trends in discipline reconstitution, the emergence of interdisciplinary degree programmes and the development of non-degree programmes designed to suit clients' immediate needs. These changes were driven by student needs, as well as by institutional policy. The process assumed different patterns across departments. The most common pattern took the form of thematically driven modules. Although these modules are theoretically rooted in traditional disciplines, the core organising unit is a theme or concept and not the traditional discipline (e.g. Forced Migration Studies, Journalism, Film and Media Studies). In this perspective, Forced Migration in particular represents the convergence of actors from different disciplines to team-design or team-teach within a fully integrated theme with respect to all aspects of its curriculum design, delivery and organisation. It reflects a total integration approach in which the "linkage idea is central to organising learners' and teachers' working relationships and provides an environment where there is a high level of ideological consensus amongst staff" (Bernstein 1971:64). For Martin and Etzkowitz (2000), these strongly integrated conceptions of interdisciplinarity could be described as 'new disciplines', increasingly recognised as separate entities with their own 'grammar' – rules, methods and focus of study.

The second pattern reflects attempts to recontextualise different aspects of humanities within the framework of a skills discourse or as a strategy for professionalisation of the curriculum in response to market demands. It arises out of programmes or courses that

⁴² This includes disciplines in the social sciences, as well as humanities. In South Africa the two are usually located in the Faculty of Humanities – the object of the study in this case.

have been interdisciplinary for a few decades but have become even further removed from the traditional disciplinary bases from which they originally grew, resulting in what could be referred to as a hidden or non-explicit interdisciplinary approach. For instance, Education, originally associated with four key disciplines over the past 10 years – Sociology of Education, History of Education, Educational Psychology and Philosophy of Education – is now losing its link with these disciplines at the postgraduate level. This situation is highlighted by the following comment: “So we always were applied because we were always applying from the disciplines. But now the discipline is further and further away from us.”⁴³

Initial interdisciplinary efforts within this pattern could be referred to as connected but disciplinary, since the disciplines that were taught were discrete but connected through educational issues. However, these traditional disciplines are no longer clearly recognisable⁴⁴ as they are subsumed by organising themes that are strongly located in the context of application – Educational Leadership and Policy Studies, Curriculum Studies, Educational Studies, Democratic Citizenship and Human Rights. History of Education no longer exists, and both Sociology of Education and Philosophy of Education have been integrated into other courses and programmes on an *ad hoc* basis around social theory issues. It is a case of an integrated approach where the disciplines are present but not explicit; they are now implicit or hidden.

The third pattern comprises thematically based interdisciplinary programmes or courses such as Heritage Studies, taught by different departments or disciplines, in a cross-disciplinary approach that fosters disciplinary collaboration (Lake 1994). The courses and programmes are partially integrated; the lecturers retain disciplinary identities with which they converge and collaborate on joint projects. Very often programmes within this model have one core thematically developed course with other courses drawn from the disciplines involved. The theme or field of practice is the basis for the design of the curriculum, which draws on the theoretical and conceptual lenses of the disciplines. It could be referred to as ‘transitory regionalisation’, in which regions are formed for the purpose of the course or programme without losing the disciplinary identity.

Briefly, the Wits scenario is varied and complex. Interdisciplinarity remains an experiment in some schools under severe contestation. Interdisciplinarity is spreading with greater speed at the postgraduate level, but it is generally slow in all the schools and departments, which offer non-professional degrees, with some of these showing little or no efforts in this regard (for instance, the School of Human and Community Development or the Department of Philosophy).⁴⁵ Wits responses range from total opposition to interdisciplinarity and strong support for disciplinary learning, pragmatic adoption of interdisciplinarity for responsiveness reasons, support for interdisciplinarity

⁴³ Interview, Education, 7 February 2007.

⁴⁴ This change has been more drastic for Philosophy and Sociology of Education, while Psychology of Education has remained unchanged in many ways.

⁴⁵ Faculty review, 2006. Academic Planning Unit. University of Witwatersrand.

underpinned by a strong disciplinary foundation, to support for interdisciplinarity not overly attached to any form of disciplinary foundation.

GENERICISM: THE RISE OF THE SKILLS DISCOURSE

The responses to the increasing demand for labour mobility and flexibility as workplace readiness have been associated with the development of generic skills such as communication, presentation and teamwork, also known as soft skills: "If our students are not going to come away being social scientists ... or even necessarily as politically knowledgeable as we'd like them to be, at least they might acquire things like presentation skills or public speaking skills, writing skills".⁴⁶ Soft skills include also what some faculty members described as 'employability skills', which reflect the principles and values from the business world: "Film and Dramatic Arts⁴⁷ [have as their] strategic goal [to achieve] 95% employability, and they are measured by this ... and they have to teach them employability skills, as well as content. They have to teach them things like entrepreneurship, how to put together a portfolio, etc."⁴⁸ The decision to promote generic skills in the humanities was triggered locally by the findings of a Human Sciences Research Council (HSRC) study that indicated that humanities students took longer to settle into jobs and had lower employment prospects than other students.⁴⁹

Genericism at Wits has been associated with courses that have little or no theoretical content, as well as with courses that are theoretically focused. Furthermore, generic skills may be integrated with content or may be 'content free'. Thus implementation of generic skills could be viewed within a matrix of content-integration strategies versus content-free strategies, as well as explicit theoretical focus and non-explicit theoretical focus. In some cases, the integration of these basic generic skills occurs within existing disciplinary or even interdisciplinary courses and programmes. For instance, Political Science students have to do presentations on key political debates as part of their assessment. In other cases, generic skills are integrated into the formal curriculum through separate modules, directly linked to workplace needs. An interesting example is the module on Music Business Studies, introduced as part of the Music degree programme, which covers topics such as basic financial skills, business management skills, marketing and distribution skills, drawing up contracts and writing funding proposals.⁵⁰ There are also examples where basic skills are introduced independently of the degree programme, through learning units that students can select on an *ad hoc* and needs basis. These include workshops on topics such as Year Planning and Time Management, Using the Web as a Tool, offered by the Graduate School of Humanities.

⁴⁶ Interview, Social Sciences, 22 January 2007.

⁴⁷ This refers to the programme of Film and Dramatic Arts in the School of Arts.

⁴⁸ Interview, Institutional management, 12 May 2005.

⁴⁹ Graduate School for the Humanities and Social Sciences Review, 2006.

⁵⁰ Minor academic development, 2004. A2004/267.

‘PROFESSIONALISATION’ OR VOCATIONALISATION OF HUMANITIES: HIGH SKILLS, LOW THEORY AND STRONG CONTEXTUALISATION

At the centre of the debates on curriculum reform in the 21st century is the theory versus skills tension. It is not a new phenomenon. It began as far back as Descartes’ analysis of rationalist versus empirical perspectives of knowledge,⁵¹ Bourdieu’s theoretical versus practical logic, Foucault’s programmes versus technologies, and Luria’s abstract versus situational thinking (Muller 2005:1), and it occupies centre stage in present-day deliberations about university education, which are increasingly geared at addressing the job market:

I would say one of the drivers is this thing about getting a job, career pathing. Many universities are responding by giving students specialist areas for jobs. Parents are also looking for jobs for their children, such as tourism ...⁵²

From a pragmatic utilitarian perspective, Wits reflects a shift in the pendulum from abstract and theoretical curriculum approaches to practical and skills-based approaches as explicitly expressed in its ‘Shaping the Future’ professionalisation strategy. In some instances this has led to a focus on practice at the expense of theory, strong contextualisation characterised by a low reliance on theory and a high reliance on experience, and concerns with professional rather than the academic dimensions of the curriculum: “I think that one of the major developments that’s happened in the humanities in the last few years has been to carry further the relationship between the formative first degree and the professional qualifications ...”⁵³ A recent study conducted by Westerhuizen, Henning, Gherdien and Morris (2007) shows that a range of Master’s and PhD dissertations in educational technology across several institutions were largely practical in nature and did not focus on conceptual or theoretical issues. Within the logic of practice, these dissertations concluded with guidelines and recommendations as opposed to theoretical contributions to the field. Off-loading theory has thus been part of the curriculum renewal strategy in some programmes such as education:

In other words, we didn’t read empirical studies; we didn’t read specific studies to classrooms, or to curriculum development or to assessment. Nothing like that! It was theorists like Althusser ... So education as a question was more by implication. And the focus was more on the discipline and mainly social theory, as well as – as much as it was developed at the time – educational knowledge, or sociology of knowledge ... Nothing like empirical studies that we are doing today ...⁵⁴

⁵¹ Descartes’ perspective is that that knowledge is acquired without resort to experience, while empiricists argue that knowledge is derived from experience.

⁵² Interview, Faculty management, 12 May 2005.

⁵³ Interview, Faculty management, 20 May 2005.

⁵⁴ Interview, Education, 7 February 2007.

Where theory still represents a concern, and it is combined with skills development, abstraction tendencies are minimised through strong contextualisation – strong reliance on experience and low reliance on theory:

At the same time we are mindful of the fact that you can't do that in a historical vacuum. So the sort of birth of politics and the context within which theory emerges is a good part of what we deal with ... We still do a more theoretically oriented approach but we try and locate it in what students will be able to hook into that will grab their interest.⁵⁵

While this pressure exists across faculties, Humanities is particularly affected because its curriculum has generally been underpinned by traditional liberal education that has largely been driven by internal developments of the discipline underpinned by a focus on theory. Thus the faculty has been associated with education aimed at cultivating cultural, social and political understandings, and not on serving extrinsic needs (McCabe 2000). However, with university education becoming a passport to getting a job, this approach is under pressure to transform.

COMMODIFICATION AND INCREASING MARKETISATION

In order to create stronger relationships between academia and the world of work, Wits has introduced a range of programmes and courses that respond to the direct and immediate needs of the workplace. These courses are perceived as being informed by clients' needs but are also driven by income-generation concerns. While short courses have always been part of the institution's offerings, these were very few and located mostly in the Business School. However, the number of short courses increased from 53 between 1993 and 1997 to approximately 124 in the period 1998-2002.⁵⁶ In terms of the Faculty of Humanities, 66 new short courses were approved between 1993 and 2004.⁵⁷ The bulk of short courses in the faculty are located in the School of the Arts, the School of Language and Literature, and the School of Education. In 2002, Wits set up Wits Enterprise, a separate company, to administer some of these commercial ventures.⁵⁸ Since 2007, the School of Languages has offered a range of courses in European, Asian and African languages, as well as courses in Business English and Spoken Business English. The School of the Arts offers a range of courses such as Image Manipulation, Digital Video, Final Cut Editing and Macro Media Flash.⁵⁹ In addition to courses run by Wits Enterprise, some courses are run directly through the schools. Examples include Democracy Training for Professionals in Political Studies, Quality Assurance through Whole School Evaluation in Education,

⁵⁵ Interview, Social Sciences, 7 February 2007.

⁵⁶ Policy on short courses, version 2, undated.

⁵⁷ Database of ABEX-approved short courses on offer at Wits for the period 1993-2004. A2004/711. 2004.

⁵⁸ HEQC self-evaluation report. University of the Witwatersrand, 2006.

⁵⁹ Short course directory, Wits Enterprise, 2007, University of the Witwatersrand.

Translation and Interpretation courses in the School of Language and Literature, and courses on Newspaper and Magazine Design and Television Studies in the School of the Arts.

This is a case of extreme disciplinary regionalisation and reconstitution driven by the external environment with little focus on the inner disciplinary principles as the organising concept of the curriculum. This form of regionalisation or disciplinary reconstitution is skewed heavily away from the 'sacred' or from systematic theoretical learning (Beck 2002:619). Thus the link between the new courses and programmes and the initial discipline is substantially reduced or limited, with implications for knowledge conception and academic identity.

WHAT DOES IT ALL MEAN?

Our brief reflection on the most recent events in the curriculum process of the Faculty of Humanities points to very interesting theoretical insights, some of them suggestive of the main trends in the reconceptualisation of higher education content in South Africa. First it appears that generally the balance sheet is not as gloomy as some analysts such as Muller (2005) and Jansen (2004) have painted it, at least in terms of the volume and scale of the Humanities project. In other words, what we are noticing is not an apocalyptic finale or a 'decline' as the humanities have repeatedly been described. What we are seeing is a ferocious, nervous and somewhat absurd *re-recomposition* of the Humanities project. Two aspects are worth highlighting in this regard.

On the positive side, the process is strategic in that it challenges the humanities to recreate the conditions of possibility for its existence in the future. International debates call for the reconstituting of the humanities. This is eloquently dramatised by Donoghue (2008) in *The Last Professor* and well illustrated by the Wits remodelling of its Humanities programmes, which suggests that the Humanities project may have to abandon its traditional rationales for its existence i.e. those associated with the Oakeshottian concept of learning just for the sake of understanding and explaining or keeping its distance from intervening in the social, economic and political turmoil of the contemporary world. Particularly in the developing world, current national and international agendas set at least three key priorities for higher education and the Humanities project in particular: (1) to inform transformation and development; (2) to help deal; to rebuild a sense of nationhood and independence reconcilable with national and international interdependence and harmony; and (3) to enable individuals and society at large to participate in the community of nations. In this regard, several curriculum initiatives have revealed that beyond 'understanding' and 'explaining', some discipline-rooted knowledge practices can directly inform practice and interventions in several domains of life. In performing these tasks, the Humanities project should not negate but reinforce its basis in the learning-understanding-and-explaining connection, as well as its role in the development of critical, socially embedded and autonomous citizens.

On the downside, there is definitely a danger of annihilating some of the most powerful attributes associated with the liberal arts tradition if the utilitarian discourse is taken to its extreme form. Thus there is a danger of confusing recomposition or reconstitution or even more appropriately adaptation in the humanities with *decomposition* of the Humanities project. Training for jobs and producing technicians do not fit well with the Humanities project and should not be foregrounded in knowledge and curriculum decision making for programmes in the humanities. In this regard, we would like to draw attention to Alvin Toffler's (2008:4) famous prophecy: "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn".⁶⁰ The Humanities project has a role in preventing such a catastrophe and should not succumb to market-driven imperatives that will destroy its invaluable contribution to the development of citizens who are able to think critically, who are grounded in conceptual and theoretical knowledge, who are able to respect and understand different perspectives and who can contribute to a democratic society. These are not unaffordable luxuries but essential ingredients for the flourishing of stable and democratic societies. Clearly there is a need for arriving at a strategic compromise between the extreme market-driven curricula and the extreme, traditional liberal curricula that contribute to societies but adhere to some of the critical approaches offered by the humanities.

Finally, epistemologically and methodologically, the chapter has serious implications. Uncritical totalising discourses are more likely to conceal than to reveal contextual complexities in curriculum reform. Today there are overriding global forces that must be acknowledged. While these are important factors in curriculum reform, they must be examined in historical terms, particularly in the context of higher education in developing countries such as South Africa. This chapter points to the need for systematic scrutiny of the variables that influence curriculum development in different national and cultural settings and acknowledges that drivers and mediators of the process vary in different contexts. Curriculum transformation in higher education is a complex process of negotiation that takes account of the interests and power relations of different players, the knowledge and identity associated with particular disciplines or programmes and the specific social, political and economic contexts of the society:

Thus sweeping generalisations do not sufficiently and accurately account for the complexity of responses and outcomes at the institutional or faculty level. Curriculum reform therefore results from the interplay of a number of external and internal factors that occur within very specific contextual conditions (Adam 2009:ii).

⁶⁰ Higher Education in Developing Countries, WB Report.

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6

INQUIRING INTO THE HIGHER EDUCATION CURRICULUM

A CRITICAL REALIST APPROACH

Kathy Lockett

INTRODUCTION

Historically the focus of research into higher education has typically focused on descriptions of practice in order to propose pragmatic solutions to urgent but complex problems. The focus has been on capturing and analysing data on activities, events and outcomes and the perceptions and experiences of participants. The tendency in this approach has invariably been towards methodological individualism based on an under-socialised view of agency. When qualitative research methods are used, there is a danger that this focus on practice can lead to idiographic description that is locked into specific contexts and subjectivities.⁶¹ More recently some radically constructivist approaches have adopted standpoint theories and epistemological relativism, eventually having little to offer to policy or practice in other contexts. On the other hand, when quantitative methods are used, this focus on practice tends towards analysing outcomes of events, for example student performance, in ways that take correlations between independent and dependent variables as cause and effect relations. These empiricist approaches are susceptible to a technicist instrumentalism where educational outcomes are individualised and become depoliticised.

The mainstream social science research methods literature has traditionally done little to cause researchers of higher education practice to question their methodologies. This is because this literature has also been overly focused on practice – that is, research practice – emphasising the practical use of a range of empirical research methods for generating data as evidence. Research methods are typically offered as a useful tool box from which researchers can pragmatically select those that meet their needs. It is unusual for this ‘how to’ literature to require researchers to interrogate the ontological and epistemological assumptions of the methods they adopt or to deal with the problem that all data is concept- and context-dependent from the start. Thus

⁶¹ Although sometimes it has been based on common sense typologies that get universalised – as in phenomenography.

many higher education researchers do not feel bound to make the coherence between ontology, epistemology and methodology in their research explicit.

In Bhaskar's (1998) terminology this preoccupation with practice would be criticised for assuming a flat ontology that limits reality to what can be observed or experienced – namely a failure to understand reality as hierarchically stratified and differentiated and thereby to understand events and experiences as the effects of agential-structural interaction. This weak theorisation and the failure to adopt a depth ontology in much of higher education research may be responsible for confusing research findings that lead to indecision in policy and practice.

However, more recently, following international trends, some higher education researchers in South Africa have begun to draw on substantive sociological theories such as symbolic interactionism, activity theory, theories of discourse and the works of Bourdieu and Bernstein – with the potential for deeper analyses of practice. But having granted this, the focus invariably remains on analysing teaching-learning practice with a view to improving pedagogic interventions. Thus the proposals for researching curriculum offered in this chapter are based on the belief that there is a need in higher education research to focus on knowledge as a 'real' objective structure (albeit transitive) with potential generative powers, and on the social construction of curriculum knowledge as a causal mechanism that has particular effects on pedagogy (social interaction in the classroom). There is a need for the development and use of theories of curriculum research that adequately capture the structural contradictions (and complementarities) that impinge on higher education knowledge, curriculum and pedagogy; while simultaneously preserving a role for agency that is analytically distinct from structure and is causally effective (Archer 1995).

The aim of this chapter is to use critical realism as a philosophical under-labourer (Bhaskar 1998) to lay out a conceptual framework and research design map for curriculum inquiry. In doing so, I recruit Bernstein's (2000) pedagogic device which works as a middle-range domain-specific theory to illustrate the possibilities of a critical realist framework. Bernstein's conceptualisation of the pedagogic device is considered to be philosophically compatible with a critical realist approach – both in terms of its realist depth ontology and the critical values it assumes (Wheelahan 2007). I illustrate the approach with examples from my own working context, academic development in the Faculty of Humanities at the University of Cape Town.

CONCEPTUAL FRAMEWORK: CRITICAL REALISM

Before setting out a conceptual map for research design for curricula, it is necessary to walk the reader through some of the key tenets of critical realism.

In the wake of the shattering of the assumptions of naïve realism by conventionalism and radical constructivism respectively, followed by the questioning of the fundamentals of Western rationality by postmodernism, Bhaskar (1975, 1998) sought to develop a

philosophy of science that re-instates a realist ontology (the assumption that there is a world of objects and structures that exist independently of what we know about them). At the same time he takes into account the anti-realist constructivist and postmodernist critiques of Western enlightenment epistemology. Bhaskar (1975, 1998) posits the existence of an ‘intransitive domain’ in which objects and structures exist with potential generative powers that may or may not be exercised. He arrives at this proposition on the basis of asking the transcendental question: What must the world be like for event X to occur? He suggests that only a small fraction of the intransitive domain is perceived through our senses and experiences; it is largely unobservable. He shows how scientific experiments seek to tap into this intransitive domain – from which causal mechanisms emerge – by creating closed systems to control certain mechanisms and observe their effects on isolated variables (Mingers 2006). This enables Bhaskar to propose a stratified and hierarchically ordered ontology with at least three nested sets of reality:

1. the empirical: observations and experiences, which are a sub-set of
2. the actual: events which may or may not be observed/experienced and
3. the real: relatively enduring (intransitive) and potentially causal unobservable structures and mechanisms which may or may not be triggered to cause events (Bhaskar 1975:56).

At the same time, with regard to epistemology, Bhaskar (1975) supports a weak form of constructivism and agrees that our observations can never be unmediated. He supports the claim that there is always an ontological gap between an object of knowledge (in the intransitive domain) and what we know about it (in the transitive domain). This means that the production of knowledge and the process of knowing are always historically and culturally relative and therefore fallible. Bhaskar thus places knowledge and knowing (epistemology) in the transitive domain. However, he objects to the “epistemic fallacy” (Bhaskar 1998:133) of radical constructivists whom he accuses of reducing the ontological domain of existence to the epistemological domain of knowledge. Furthermore, he does not assume that accepting that knowledge is socially and historically relative means that one cannot judge some forms of knowledge to be more useful and ‘true’ to the nature of reality than others. For our purposes, it is important to conceptualise knowledge carefully. Following Bhaskar, this entails accepting the fallibility and social constructedness of all forms of knowledge; but, also recognising that, once produced, knowledge sits in as an ontological cultural object (a stock of information, ideas and beliefs) with potential generative powers. Archer (1995) notes that, in the abstract world of ideas, certain ideas set up logical relations (e.g. of complementarity or contradiction) with other competing ideas within a given cultural system, thus creating potential situational logics for particular contexts. However, to be causally effective in the empirical world of practice, ideas have to be selected and taken up by individual agents in particular roles and institutions. Whether or not an idea gets taken up is always contingent upon a particular context. I will

return to this understanding of knowledge when discussing the recontextualisation of knowledge into a curriculum below.

Bhaskar (1998) argues for the possibility of a “critical naturalism” (Bhaskar 1998:21) in the social sciences on the basis of the relatively enduring nature of social and cultural realities that also have causal properties and powers. He views social science as a special case of natural science that exhibits certain limitations due to the social nature of its objects. For example, Danermark, Ekstrom, Jakobsen and Karlsson (2002:200) note the following characteristics of the social sciences:

- Social scientists seek knowledge (a transitive object) about a socially produced and a socially defined reality in which they interpret the interpretations of other people.
- Social structures are localised in time and space and so are less permanent than natural structures.
- Social structures are dependent on human intentionality within meaning-making systems and so are always open and interactive.

Despite these limitations, Bhaskar (1998) believes that it is possible to develop an explanatory social science, with imaginative conceptualisation as its distinguishing feature.

According to Danermark *et al* (2002) the methodological implications of Bhaskar’s critical realism for social science are as follows. Against empiricism, it suggests that explanations will not be gained by observing events (regularities of events can only provide us with descriptions). In order to posit the existence of causal mechanisms, critical realism advocates the use of abduction (creative reasoning that sets up new relations by locating phenomena in new conceptual frameworks) and retrodution (imaginative abstraction that cannot be proved) as opposed to the use of deduction and induction in the scientific method (the building of general but falsifiable laws). Thus in social science, creative reasoning and abstraction become a necessary part of the research process.

Critical realism also proposes that, while the logical relationships between concepts or abstractions in a theory can be necessary (by definition), the relationship between causal mechanisms and their effects is always contingent on the context. This means that causal mechanisms should be understood not as laws, but as tendencies or potential powers that may or may not be triggered, depending on other counter-mechanisms and factors operating in a particular context. This is important for understanding the complexity of open social systems where a multitude of mechanisms are potentially at work but where only some will be triggered, resulting in a mechanism having different effects in similar contexts and, in some cases, combining with others to result in the emergence of new objects and properties and the next strata of the system.

In driving a wedge between naïve empiricism (objectivism) and radical constructivism (idealism), Bhaskar (1975) accepts the social construction of knowledge, but rejects

the conclusion that there is thus no basis for judging different knowledge forms. This means that critical realism can provide a platform for making deliberate methodological decisions on the basis of explicit meta-theoretical assumptions. It does not hold to the incommensurability of knowledge paradigms, but rather advocates the use of a theoretically derived mixed methods approach described by Danermark *et al* as “critical methodological pluralism” (2002:204).

Finally, Bhaskar follows Habermas in the critical tradition’s search for an emancipatory social theory that provides a sufficiently explanatory critique to provide a basis for transformative social action.

A CRITICAL REALIST MAP FOR CONCEPTUALISING CURRICULUM RESEARCH: ADAPTING THE PEDAGOGIC DEVICE

Before embarking on a research project in social science, one usually has a good sense of an area of concrete phenomena from which arises a research question that begs further investigation. In this paper, I will, by way of example, pursue the following question: How does the curriculum contribute to persistent differentials between black and white student performance in the Faculty of Humanities⁶² at the University of Cape Town (UCT)? In order to operationalise this research question, it would obviously need to be broken down further into a series of course- or major-specific studies, but for the purposes of this chapter, I will keep it as a generic, over-arching research question to be addressed. This research question arises from the concrete context of an academic development programme run by the Faculty of Humanities at a research-intensive English-medium historically white university in South Africa. The institutional culture could be described as liberal-humanist and predominantly collegial, underpinned by strong disciplinary cultural and structural systems. The curricula offered in various Humanities departments have historically been constructed from European or global texts in English with white middle-class students in mind. However, more recently some curricula have been re-shaped to accommodate the institution’s Afropolitan focus, the changing racial and class composition of the student body and possibly the post-apartheid state’s ‘transformation agenda’ which is endorsed by senior management. For similar reasons, an Extended Degree Programme was established in the Faculty in 2005 to provide the increasing numbers of black students with an additional year of foundational and supplementary tuition to help them manage the mainstream curricula. From 1990 to 1999 the total enrolment of black students at UCT increased five-fold to almost 30% of the total enrolment, and to 40% by 2008. However, graduation rates remain racially skewed: graduation rates for the 2004 cohort are reported as 81% for white students, 55% for mainstream South African Africans and 33% for academic development students on Extended Degree Programmes (UCT 2009a:6). In the Faculty of Humanities, the graduation rate for the 2006 cohort of academic development

⁶² This Faculty comprises over 20 departments that include the social sciences, humanities, languages and the performing arts.

students is slightly more promising at 42% compared to 73% for all mainstream students, excluding academic development students⁶³ (Lockett 2010: Appendix A).

Having formulated one's question as precisely as possible, including settling on definitions of terms, the unit(s) of analysis and defining the parameters and scope of the study, one can begin the move from the concrete to the abstract. This usually involves drawing on or adapting already existing theories that have proved useful in similar studies. Critical realism is a meta-theory that sits at a very high level of abstraction, making it difficult to apply directly to a particular research problem. As stated above, critical realism serves as the philosophical under-labourer and needs to be complemented by more domain-specific descriptive theories. Critical realism can provide a methodological platform for developing a research design, for it allows one to locate in time the move from *a priori* intransitive abstract structures to concrete events and agential interaction, which in turn can reproduce or transform the structures. However, for the purposes of educational research, the theory lacks education-specific content. In order to illustrate a particular realisation of a critical realist research methodology and to give conceptual content to the research design, I recruit Bernstein's "pedagogic device" (2000:28) (see Figure 6.1 below) as an appropriate middle-range theory focused on the domain of education and social inequality.

Bernstein (2000) developed the pedagogic device to explain how education institutions tend to reproduce social relations of inequality. His theory is thus appropriate for addressing my research question. His work falls generally within the critical tradition, in that he aimed to develop an explanatory critique that, through better understanding, might empower people to change the ways education systems operate in favour of those whom it currently fails. He was critical of the literature that simply shows that education institutions tend to reproduce relations of inequality. Instead, he asked the transcendental question: "What makes pedagogic communication possible?" (Bernstein 2000:25). He went on to open the black box of pedagogic discourse to find out exactly how structural relations of power and control get into pedagogic discourse which in turn shapes how educational agents (teachers and learners) interact in particular institutional and classroom contexts – with differential effects. In keeping with a critical realist ontology, the pedagogic device is conceptualised as three hierarchically nested fields, each governed by a set of rules (causal mechanisms) which set the structural and cultural conditions under which pedagogic activity in particular contexts will occur. Through the pedagogic device he was concerned to show how disciplinary knowledges (cultural objects produced in the Field of Production with potentially causal effects at

⁶³ From a critical realist perspective it is critical to view these statistics as providing only descriptive, as opposed to explanatory, information – i.e. an observed correlation between two variables: apartheid defined population 'race' categories (now based on self-selection) and academic performance. Critical realists view 'race' as a chaotic concept that blurs a number of causal mechanisms and does not distinguish between necessary and contingent relations. The research proposed here would thus seek to clarify what causal mechanisms are in fact operating in this particular context.

the next stratum) get transformed into pedagogic discourse (the planned curriculum) in the Field of Recontextualisation which in turn acts as a causal mechanism for the next stratum, the Field of Reproduction or classroom practice (the enacted curriculum made up of events and experiences of teachers and students). Bernstein was concerned to map out the ontologically real domain of structures and potential causal mechanisms: “Macro-constraints must be made visible by the conceptual language, in their power to shape interactions” (Bernstein 2000:19). Furthermore, he understood the power of human agents to act back on social structure: “At the same time the potential of interactions to shape macro-constraints must be capable of being described” (Bernstein 2000:19).

The key features of the pedagogic device adapted for higher education (HE) are set out in Figure 6.1. I will use its three hierarchically nested fields and the different sets of rules (understood as causal mechanisms) which constitute each field to describe a research design that could answer the research question outlined above. My focus on research design as opposed to research methods is based on the belief that, in social science research, careful abstraction and conceptualisation are more important than practical decisions around the choice and use of methods. A research design such as that proposed here would require a mixed methods approach, and, in deciding what method to use where, I would heed the advice of Danermark *et al* (2002) – that the selection of research methods is a practical matter to be determined by both the research question and the nature of the object of study.

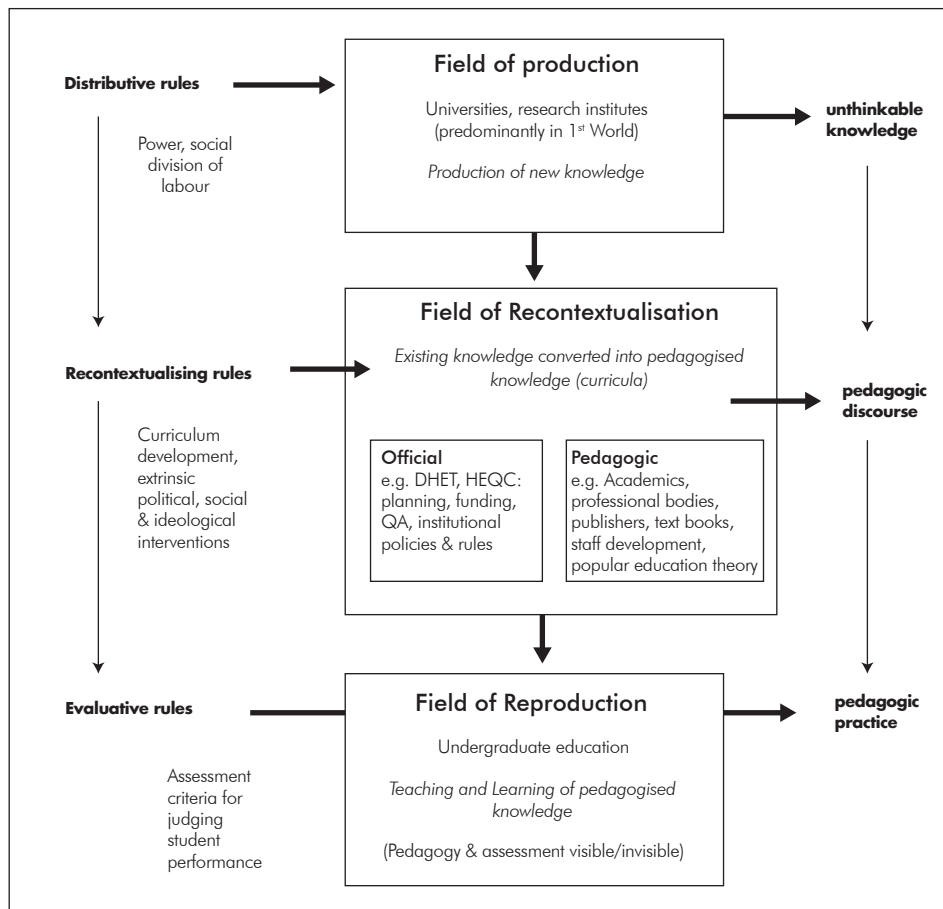


FIGURE 6.1 A pedagogic device for Higher Education in South Africa (adapted from Bernstein 2000:37)

DISTRIBUTIVE RULES

According to Bernstein (2000:114) the Distributive Rules are the power relations that distribute different forms of knowledge or different forms of “consciousness” to different social groups. They constitute the Field of Production, that is, they govern who has access to the specialised symbolic resources required to produce new knowledge. A critical realist approach would view the low throughput rates of first-generation black students at South African universities as an effect of salient causal mechanisms or Distributive Rules operating in a particular society. Bernstein’s conceptualisation of the Distributive Rules enables one to assume the ontological existence of *a priori* intransitive socioeconomic and cultural structures that were in existence before the phenomena under scrutiny occurred. These are understood to generate causal mechanisms that have the potential to be triggered and thus impact at inner fields of the pedagogic

device – where one can collect data on their effects at the empirical stratum of pedagogic practice (the events, observations and experiences occur in the Field of Reproduction). It is important to note that whether or not these causal mechanisms get triggered is a matter contingent on each context – that is, their effects have to be demonstrated in detailed empirical studies and cannot be assumed. The possible effects of other counter-mechanisms that might block these effects from surfacing also need to be taken into account.

In the South African post-colonial context, the obvious place to begin in thinking about structural and cultural conditioning that generates the Distributive Rules for higher education is the extractive, capitalist system that has resulted in social relations of extreme inequality in South African society. As is well known, this is a legacy of apartheid and colonialism and in some cases, slavery. The mineral revolution and the industrialisation of the South African economy in the late 19th century, based on the exploitation of cheap migrant labour, is a key structure that exacerbated the dispossession of land, urbanisation, the break-up of traditional African societies, segregation and poverty.

Since the political transition of 1994 a more recent counter-structure is the emergence of a small black elite that may be beginning to erase, to some extent, the effects of this socioeconomic structure for some of the students in the study. Thus a line of inquiry related to the working of the Distributive Rules in this study could be: What is the socioeconomic status or ‘class position’ of current black Humanities students? Secondly: To what extent and in what ways does socioeconomic structure impact negatively on their studies? A major challenge that faces researchers here is how to operationalise the concepts of socioeconomic structure, class, or even educational disadvantage – and gather the requisite data.

The second obvious cultural structure that generates causal mechanisms in this context is that of racism – which historically has devalued African identities, cultures and languages, leading to humiliation, shame, anger and loss of self-respect. Thus a second Distributive Rule that potentially impacts on this research problem is the influence of racism and the extent to which this cultural structure has or has not been turned back by the 1994 political transition. It may well be more manageable to pose this question at the level of the institution – that is, to ask the students about their perceptions of institutional culture.⁶⁴

A related cultural structure that generates causal mechanisms that can be triggered at all levels of the pedagogic device in the South African context is the hegemony of English as a global and colonial language (Alexander 2003). There is a significant body of South African research literature on the relations between home language, language of learning, the identities assumed by educational institutions and the extent

⁶⁴ See for example Transformation of Student Life at UCT: Overview of surveys of student climate (UCT 2005).

to which these relations cause barriers to learning (see for example Bangeni & Kapp 2005; Boughey 2010; Kapp 2004).

In his early work on codes Bernstein (1971) looked at the institution of the family and researched how prior cultural conditioning, what he called different orientations to meaning, are developed in families in different class positions. He suggested that middle-class orientations to meaning stand in a complementary relation to the semiotic systems of the school, while those of working-class families stand in a contradictory relation. He showed how access to abstract meanings (the elaborated code) is a property that tends to be reproduced only in middle-class families and differentially by the school. Despite the importance for educational success of the symbolic resources that a family offers its members – and of equal importance, how some individuals manage to escape the limitations of their natal contexts – in the current post-apartheid context, the situation is far more complex and the assumed hegemony of the Western middle-class code is contested. Researching the codes of different family types would be a very complicated and sensitive exercise.⁶⁵ However, one can speculate that the Distributive Rules have worked historically to prevent the South African African languages (excluding Afrikaans) from developing to the point where they carry the full range of specialised discourses and powerful knowledges of modernity. Instead, in order to access powerful knowledge, South Africans currently have to master one of the hegemonic languages, English (or Afrikaans). One can assume that this must be one factor in shaping who gets better access to what Bernstein (1990, 2000) terms the elaborated code of the school and ultimately to powerful unthinkable knowledge.

In South Africa, the continued legacy of the historical unequal provision of education, such as poorly trained teachers and poorly equipped township and rural schools, continues to work as a potential causal mechanism (Distributive Rule) for the poor academic performance in HE of many black students. So a question related to this study could be: What access to what types of knowledge has the education system offered this cohort of students? (see for example Hoadley 2008). A counter-mechanism currently operating is access by the children of the emerging black middle class to good quality private or suburban schools. It would be important to probe what evidence there is for this at the empirical level.

The scope and depth of a research project is inevitably constrained by limits on time and resources. It is unlikely that a single researcher would be in a position to gather data on all of the Distributive Rules discussed above. A research project such as that proposed here would require substantial funding and a team of researchers. One way of reducing the scope of the project would be to focus only on educational institutions and on the salient mechanisms and activities within those that Bernstein selects in his conceptualisation of the pedagogic device.

⁶⁵ As Bernstein himself learnt to his cost in the British context in the late 1960s and early 1970s.

KNOWLEDGE STRUCTURES

Thus far I have described what might be some of the Distributive Rules that regulate access to symbolic power and powerful knowledges in the post-colonial South African context. In doing so I have described how material and cultural structures, external to knowledge itself, potentially impinge on access to knowledge and in particular to *unthinkable* knowledge. Bernstein (2000:31) terms the process whereby distinctions within and boundaries around knowledge, its agents and institutions are set and maintained, *classification*. Classification between things and people can be *strong* or *weak* and its maintenance depends on the power of those who make the distinctions and police the boundaries.

Late in his life, Bernstein sketched out what he termed ‘internal knowledge structures’ (2000:161).⁶⁶ Firstly, he distinguishes between vertical and horizontal discourses: the former describes strongly classified, abstract, context-independent, forms of scholarly uncommon sense knowledge leading to specialised forms of consciousness; while the latter describes weakly classified, concrete everyday common sense knowledge forms, whose meanings are embedded in their contexts (Maton & Muller 2007). My reading of Bernstein is that the purpose of educational institutions is to create relatively closed systems – created through the imposition of strong classification (boundary creation and maintenance) – so that students can be inducted into specialised vertical discourses by means of pedagogic discourse.

Bernstein (2000) further develops his theory of knowledge structures by suggesting that within vertical discourse there is a dichotomy between the hierarchical knowledge structures of the natural sciences and the horizontal knowledge structures of the social sciences. He claims that hierarchical knowledge structures have a “coherent, explicit and systematically principled structure” (Bernstein 2000:157) where meanings are strongly classified, hierarchically organised and integrative. He understands this to be a function of the experimental method where relatively precise, consistent, empirical descriptions of the objects of knowledge are possible and whereby theory can be empirically confirmed or disconfirmed. By contrast, he suggests that the horizontal knowledge structures of the social sciences and humanities are segmentally and cumulatively organised, taking the form of a “series of specialised languages with specialised modes of interrogation and specialised criteria for the production and circulation of texts” (Bernstein 2000:157) – such that different discourses sit alongside and compete with each other, rather than building vertically.

From a critical realist position, Bernstein’s distinction between the natural and the social sciences is overly exaggerated and his view of natural science comes close to

⁶⁶ Relations ‘within’ as opposed to relations ‘to’ knowledge.

naïve empiricism.⁶⁷ As stated above, Bhaskar (1998) understands all knowledge to be transitive and epistemologically fallible; and social science to be simply a special case of natural science because of the more complex and social nature of its objects. Maton's (2000, 2007) claim that all knowledge forms have a relation both to their objects and to their subjects (the knowers) is helpful. I suggest that an adequate conceptualisation would allow both relations to potentially shape the structure of a particular knowledge form (across the natural and the social sciences) and recognise that exactly how this happens is contingent upon the historical and cultural conditions of its production. Furthermore, the more complex the object of study and the greater the level of expertise required to know it, the more difficult it becomes to be explicit about the rules for knowing it – and thus to turn its specialised discourse into an explicit pedagogic discourse.

The humanities (including the social sciences) can be characterised as dealing with complex and indeterminate objects of study, as requiring particular kinds of knowers who possess distinctive personal properties (Maton 2007) and, one could add, resulting in knowledge forms with plural and surplus meanings. Thus one can speculate that the exercise of turning the specialised and often implicit discourses of the humanities into explicit pedagogic discourses for students, who do not necessarily share the same semiotic resources as those who produce and deal in these discourses, is a difficult one. I now turn to the rules that Bernstein suggests govern such an exercise.

RECONTEXTUALISING RULES

Following Bernstein (2000), the Recontextualising Rules constitute the Field of Recontextualisation and govern how specialised knowledge discourses from the Field of Production get selected and reordered into a curriculum of thinkable knowledge by recontextualising agents. These agents combine knowledge discourses with other discourses external to knowledge (such as educational theory and/or educational common sense and state and/or institutional policies). The product is *pedagogic discourse* which Bernstein (2000:32) suggests is a *virtual practice with imaginary subjects*, that is governed by a logic different to that of its parent discourse. From a critical realist perspective, this is an important point, for it indicates that the construction of pedagogic discourse is an arena of social planning that occurs prior to actual teaching and learning interaction in the classroom – which in turn, it conditions. It is also important to note that the agents in the Recontextualising Field are usually those who already wield significant symbolic power and are positioned in particular institutional roles that legitimise this activity. Students are not yet in the picture – they are only the imagined subjects of a particular curriculum or pedagogic discourse.

⁶⁷ Bernstein appears to have failed to take into account recent work on conventionalism, the sociology of science and technology and ethnographies of the scientific process where the historical, cultural and gendered relativity of science is emphasised.

Bernstein shows how the subject positions that a particular curriculum creates for students may be highly ideological (see below).

Bernstein (2000) terms the processes whereby decisions about the selection, sequencing, pacing and evaluating of curriculum knowledge are determined, as *framing* – a form of control. He suggests that this process of framing curriculum knowledge is contested, and, in the case of schooling, the contestation is between the state (which tends to play a central role in curriculum design, examining and control) and pedagogic professionals (who for example, popularise educational theory and write textbooks). In contrast to the school context, in higher education academics still exercise considerable agency in all three fields of the pedagogic device (despite increasing intervention and surveillance by the state via funding, requirements for the registration of qualifications and quality assurance). Academic agency is usually more evident in the case of the *singulars*⁶⁸ (inward-looking, pure disciplines) than in the case of the *regions* (Bernstein 2000:52) (outward-looking professions where professional bodies typically exercise some control over curriculum content through accreditation procedures) and the *generics* (*ibid*) (procedural vocational training derived from workplace practice).

Bernstein (2000:32) warns that the process of moving knowledge from one field to the next creates a “discursive gap in which ideology can play”. In other words, the construction of curriculum is a social practice that opens up knowledge discourses to interference from external, contingent, recontextualising rules, including ideologies that function as potential causal mechanisms that will determine the extent to which the logic of the discipline and the specialised voice of the original discourse will be retained in the new pedagogic discourse. Bernstein (2000:32) tries to capture this social fact of pedagogic discourse by positing the existence of a *regulative discourse* (the underpinning rules of the social order) which makes teaching and learning as social interaction possible but which, in turn, is derived from ideologies about the nature of society, how teaching and learning should occur, how teachers and learners should behave, etc.

In applying Bernstein’s conceptualisation of the Recontextualising Rules to the question of the structuring influence of the curriculum on the persistent under-performance by black students in the humanities, a few pertinent points should be noted. Firstly, Bernstein (2000:38) rather provocatively states:

Whoever appropriates the device, has the power to regulate consciousness.

Whoever appropriates the device, appropriates a crucial site for symbolic control.

The device itself creates an arena of struggle for those who are to appropriate it.

⁶⁸ In the singulars, academic identities are based on research achievements in the disciplines and not on teaching expertise. In South Africa, academics are not required to obtain professional training in education and so do not necessarily think of curriculum development as a practice requiring specialisation or expertise.

In South Africa, following the political transfer of power, we should not be surprised that the curriculum becomes a site of contestation. We should not be surprised when, in a bid to wrest control of symbolic power from the old elites, the emerging black elite start calling for the decolonisation of the curriculum. For example, a black Vice-Chancellor has made the following call:

The choice of what to teach, who to teach and how to teach and what to research has to be driven by Africans themselves, from our perspective, our vision of the future and our experiences ... The uniqueness and originality of our identity and scholarship would determine our power, our value, our condition, our contribution and competitiveness in the global village (Makgoba 1997:175-176).

Nor should we be surprised at attempts by a modernising post-colonial state to gain greater control of higher education in order to impose its ideas of social transformation. Since 1994, and in particular since 2001, there has been a raft of HE policy development and implementation in what has been characterised as a period of strong steering by the South African state (Badat 2009). This has led to greater state intervention than ever before, particularly in the areas of planning, funding and quality assurance. Through these steering mechanisms, the state has attempted to impose its transformation agenda as a moral imperative on all HEIs but without increasing the HE budget. The National Plan for Higher Education (2001) stressed the importance of improving the efficiency of the HE system and warned that institutional interests would not be allowed to stand in the way of transformation.

Aware of this context, the University of Cape Town (senior management) revised its Strategic Plan in which it now describes itself as an Afropolitan university (UCT 2009). The new plan sets out the vision of an Afropolitan university but also affirms its world-class aspirations: the university is to be “a brilliant example of a developing-world university” and research and teaching are to “give space to African voices” (UCT 2009:11). Regarding transformation, the plan expresses the desire that the full diversity of South Africa be represented in its staff and student composition and that the university be experienced by all as “inclusive and nurturing” (UCT 2009:5).

But despite attempts by external players to establish new Recontextualising Rules to shape the curriculum, they have yet to impinge on the heartland of the singulars. At an elite, research-intensive institution such as UCT, the design of the Humanities curriculum remains largely in the hands of the academics. The increase in state control has affected the conditions under which teaching and learning occur, rather than the actual content of the curriculum and academics can still choose whether or not to respond to calls for greater relevance and contextualisation. However, the modernising ethos of the new state has meant that the status and funding for the humanities has decreased in relation to that of the technical, quantitative and professional disciplines. This in turn places greater stress and work-loads on academics in the humanities.

As the key recontextualising agents, academics in the humanities do, however, find themselves in an institutional logic of considerable tension. On the one hand, in

keeping with its research-intensive status, the institution's reward and promotion system is heavily biased towards research performance (an unintended side-effect of which is the de-valuing of teaching). Thus an important line of inquiry in this study could be to investigate how much time and energy academics in this faculty believe they can afford to devote to curriculum development, and what their motives for doing so might be. To what extent are their practices governed by the institutional logic of rewarding research and to what extent do they choose to work against this, motivated by a commitment to values other than self-interest, such as being responsive to new students and/or social transformation?

Regarding the construction of the Humanities curricula, the situation is such that the identities of individual academics⁶⁹ may still function as a significant recontextualising rule. A line of inquiry here could be to find out who is the *imaginary subject* of the curricula they construct and the extent to which this is still based on historical norms (i.e. middle-class, well-prepared students).

Historically, what has been termed the articulation gap between the ideal subject of the traditional curriculum and the actual educational levels of students from poor schools has been dealt with by creating first Foundation and then Extended Degree Programmes for academic development (black) students. These programmes involve slowing down the pacing of the curriculum by adding an additional foundation year below first year and by providing supplementary support to academic development students in their first year of study. This pedagogic work has historically been done, not by the academics, but by less specialised academic development practitioners who tend to be female and on contract conditions of employment. The influence of these academic development practitioners is largely confined to the Field of Reproduction – that is, they are not institutionally positioned to engage with curriculum design in the Field of Recontextualisation. Instead they focus on teaching a received curriculum slowly and deliberately in order to try to make the assumptions of the curriculum and assessment criteria more explicit (in Bernstein's terms this is called developing a *visible pedagogy*). So another line of inquiry could be to ascertain to what extent academics believe they have the expertise to design curricula for under-prepared students and what the role of academic development practitioners should be in this regard. A related question to investigate could be to compare the academic performances of students who move from the *visible pedagogy* and supportive, *therapeutic* (Bernstein 2000:73) regulative discourse of the extended degree programmes in their first year to the mainstream curriculum in their second year and the extent to which they experience mainstream pedagogic discourse as too demanding and/or culturally alienating.

The challenge to develop a recontextualised Afropolitan curriculum from the traditional singulars in the humanities entails retaining the integrity of the specialised voices of the disciplines and at the same time offering cultural and epistemic access to first-

⁶⁹ The majority of senior academics in the faculty are white and male and themselves educated either at UCT itself or at English or North American universities.

generation, under-prepared black students. The problem may be particularly acute in the humanities where knowledge objects are typically complex and ill-defined, where the methods and procedures for studying them are seldom prescriptive and where the subjectivity of the knower is a key mechanism in shaping the form of knowledge that gets produced. This means that the rules for producing or even agreeing on what counts as a legitimate text often remain implicit or tacit. For these reasons, engaging with academics in the humanities on their understanding of the nature of their disciplines and on the extent to which the rules for producing a legitimate text can be made explicit could be an interesting line of inquiry to pursue.

EVALUATIVE RULES

In Bernstein's model of the pedagogic device, the Evaluative Rules are derived from the Recontextualising Rules and constitute the Field of Reproduction at the empirical stratum where actual teaching and learning occurs. The Evaluative Rules constitute the criteria that are to be communicated through pedagogic discourse and practice and that are used to assess the performance of students; that is, to determine whether or not they have produced legitimate texts and are developing the required specialised voice of the discipline concerned. It is here that Bernstein recognises that agency can act back on structures and either reproduce or transform them.⁷⁰ This means that it is possible for teachers to teach well and for learners to learn well, such that first-generation students do gain access to symbolic power and institutional positions that lead to social mobility. In turn this may legitimise their roles in gaining control of the pedagogic discourse. This is what Bernstein is referring to when he mentions the inherent paradox of the pedagogic device – namely that although it is set up to regulate symbolic power, it contains within its own structure the possibility of its own transformation (and the transformation of the consciousness of the agents involved).

Research based on Bernstein's theory of pedagogic discourse suggests that the more visible the pedagogy, that is the more explicit the evaluative rules are made, the greater its potential for social transformation. As suggested above, this is a particularly demanding challenge in those disciplines where, due to the complexity of the knowledge objects, the procedures for studying them are ill-defined and contested, the subjectivity of the knower is an important factor in shaping the legitimate text, and the texts themselves are polysemic. The situation may be exacerbated in post-colonial contexts where there remains considerable cultural and semiotic distance between the subjectivities assumed by the curriculum and the identities and consciousnesses of the students. Research to identify and give content to this semiotic distance in particular curricula is perhaps the crux in answering the research question posed at the beginning of this chapter. Careful textual analysis of assessment practice, for example

⁷⁰ It is unfortunate that Bernstein's term 'Field of Reproduction' captures only the reproductive and not the transformative aspect of the device. Perhaps this is a reflection of his pessimism regarding the potential of education institutions to change social structure?

student scripts and how academics mark them, is a possible data source for capturing this. More general research could include detailed qualitative investigations into the experiences of black students (especially on historically white campuses such as UCT). One could investigate whether and to what extent they experience the curriculum as one that positions them as other, as failures or as deficient. One could also find out to what extent they believe they can exercise agency within the subject position a particular curriculum offers them. One needs to understand the reasons they give for their failure to produce legitimate texts.

In conducting research at the stratum of social interaction, it is quite valid to obtain and analyse social actors' reasons for doing what they do. This is because at this stratum, people's reasons for acting (whether or not they are accurate or correspond with reality) function as causal mechanisms that have the potential to act back on structure and culture.

CLASSIFICATION AND FRAMING

A perennial challenge in conducting empirical research is to determine a) what to select as data from the flux of reality, and b) once collected, to decide how to analyse it. Without wanting to dismiss other methods for doing this, it is pertinent here to discuss Bernstein's two related concepts, *classification* (Bernstein 2000:6) and *framing* (Bernstein 2000:12), because they informed the empirical work he did in order to develop the device. Bernstein (2000) suggests that these concepts can be used as a means of operationalising his theory and for moving (or translating) between the theory and everyday reality. He defines classification as "the relations between categories" and emphasises that it is the degree of *insulation* between categories that is significant. Further, that it is power relations that give rise to and maintain boundary rules and classificatory principles (Bernstein 2000:99). Bernstein relates this in its most abstract form to the maintenance of a "given social division of labour" (2000:100). When these classificatory principles are acted out and communicated by educational agents (teachers, academics) in curriculum and educational practice, then Bernstein refers to them as *framing*. He defines framing as the "locus of control over the selection, sequencing, pacing and criteria of the knowledge to be acquired" (Bernstein 2000:100). As for classification, framing can be strong (when boundaries are well insulated) or weak (when boundaries are permeable).

I believe that through these concepts, Bernstein alerts education researchers to a crucial way of understanding how meaning-making and power are related – through the creation and maintenance of semantic boundaries – something that sociologists, anthropologists and systems-thinkers have worked with for some time. Critical realists (for example Mingers 2006) understand information to sit in the intransitive domain. It is only when human agency and intentionality impose a semantic order on information – that is, that distinctions and classifications are made and some things are selected as significant and others not – that meaning can be made from the flux of reality.

However, this process of making distinctions and selections is socially and culturally relative, becomes codified in the signs of particular languages and even relativises perception itself (hence Bhaskar's insistence that knowledge belongs to the fallible, transitive domain). Furthermore, as Bernstein was very aware, some human actors have the power to make their meanings stick, while others do not.

However, it is important to understand that systems of classification are not only about power. Bernstein understood them to be fundamental to the process of abstraction "from the material base" (Bernstein 2000:30), essential for specialisation, theory-building and the accumulation of knowledge. He understands education institutions to function by creating relatively closed systems whereby a special time and space can be used to induct learners into society's inherited ways of making the distinctions that count. The greater the control of the pedagogue and the more strongly classified the time and the space – and the content taught within it – the more likely it is that specialised voices will be developed. However, in noting the paradox of the pedagogic device (that is, that it cannot control what it sets out to control), Bernstein allows for what critical realists would term emergence. *Emergence* is the development of qualitatively new phenomena that emerge from the interaction of structures and objects and their properties at a lower stratum of reality.

Bernstein's insights into the importance of making and maintaining distinctions, captured in his two concepts, classification and framing, as a key principle that underpins semiotic systems, provide researchers of the curriculum with a useful tool for the collection and analysis of data. Texts from all three levels of the pedagogic device can be collected and analysed using classification and framing to determine what boundaries are being set up and maintained in particular educational contexts. The strength of the insulation of the boundaries will indicate how much power the boundary-maintainers are wielding and also the degree of the specialisation of the pedagogic discourse. In this way Bernstein provides a method for assisting researchers to decide what to select and analyse from educational texts and a method for showing what kinds of meaning and power are structured into them.

CONCLUSION

This chapter has aimed at shifting the discussion on researching curriculum in higher education from the pragmatic selecting of research tools from a tool box of methods to one where consideration is first given to theory selection and the articulation of its ontological and epistemological assumptions. Thereafter a research design and methodology can be developed in alignment with these assumptions. The argument pursued in this chapter is that a theory-driven approach to research design and methodology might improve the quality of research outputs and possibly have a useful impact on higher education practice.

In setting out a philosophical framework based on critical realism and given theoretical content by Bernstein's pedagogic device,⁷¹ I have set out a social ontology for researching curriculum that can demonstrate how individual agency is mediated by social and cultural structures that set up particular situational logics in particular institutional contexts. Crucial to an adequate research design for curriculum, is to grasp the properties and powers of the underlying social and cultural structures and to understand how these set up particular situational logics for actors. One then needs to understand how actors in different roles interpret these logics and how these do or do not become reasons for the choices they make and the actions they take. However, because individuals are positioned differently – in particular institutional roles – some individuals (such as the academics in our example) are in a position to wield greater agency than others (the black students in our example) and so the order of the symbolic universe tends to be maintained and reproduced (through the principles of classification and framing). Whether or not structural transformation occurs is contingent on the nature of the situational logics that particular institutions set up, the degrees of classification and framing that are maintained, as well as on the constrained choices that positioned human actors make within these.

Critical realism enables one to appreciate Bernstein's ability to theorise, through the pedagogic device and the principles of classification and framing, how social and cultural structures (assumed by a realist ontology) shape curriculum construction and social interaction in a classroom. For example, the pedagogic device can show how black students from poor, township or rural schools in South Africa are structurally positioned and culturally conditioned to fail at an institution such as UCT. In this sense Bernstein was correct in suggesting that the tendency or situational logic of education institutions is towards social reproduction as opposed to social transformation. However, a critical realist framework⁷² shows up limitations in Bernstein's work in this regard. Despite his acknowledgement of the paradox inherent in the pedagogic device, his theory, possibly a result of the influence of Durkheim, tends to view agency as over-determined by social and cultural structures. Black students at UCT can and do overcome their positioning by educational institutions and curricula designed to serve others – and the pedagogic device gives an important but only partial account of how this is so. Given that he was a sociologist, it is unfair to further criticise Bernstein for under-theorising the importance of motivational and affective factors in the emergence of student agency. However, the challenge remains to develop a research design that can reveal the dialectical workings of structure and agency in particular educational contexts.

⁷¹ In Bernstein's case, the theory also provides methodological tools, that is, a means for operationalising its concepts via classification and framing.

⁷² Of particular relevance here is Archer's (2000, 2003) theorising of agency and the "internal conversation" – but this is beyond the scope of this chapter.

What is not resolved in this chapter and what remains an area for further conceptualisation and empirical research is the extent to which particular aspects of curriculum knowledge are culturally arbitrary (for example, constructed on the basis of anachronistic recontextualising rules) and therefore can and should be changed. Likewise, what remains unresolved is which elements of curriculum knowledge should be protected because, although always fallible and revisable, these are the vertical spines of knowledge forms that have developed powerful ways of abstraction and theorising about the relatively enduring properties of certain natural and social objects of knowledge.

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PART TWO

CHALLENGES IN RECONCEPTUALISING
UNDERGRADUATE AND
POSTGRADUATE EDUCATION

7

INTERCULTURAL SPACE IN HIGHER EDUCATION CURRICULA

Nonnie Botha

INTRODUCTION

Aguado and Malik highlight that the world has increasingly become a more complex, unstable but also interconnected place, populated with people from many diverse cultures. They state that universities “should be able to prepare their students for life in this increasingly hybrid and complex world” and that they “must help students to see beyond themselves and understand better the interdependent nature of our world” (Aguado & Malik 2009:201). They argue that intercultural education has to do with creating new social spaces where interaction and relationships are characterised by negotiation and creativity; subsequently they propose that, instead of conceptualising intercultural education as being part of the university setting, the university should rather be conceptualised through an intercultural lens (Aguado & Malik 2009:201). Florio-Ruane expresses a resonating principle when she states that the “explosion of intercultural contact in our historical moment challenges us to rethink our social and psychological explanations of learning and development ... We must teach with the insight that culture is bound up with learning” (2001:28). Breier identified this issue a decade ago when she pointed out that one of the international debates in higher education involves how curricula should accommodate the effects of changes in student population from diverse ethnic groups and from other countries (2001:2).

This chapter aims at taking the reader on a tour of the literature in order to explore what has happened in the past decade by focusing on how intercultural curriculum issues in higher education could be conceptualised, how spaces for interculturalism could be infused into the curriculum and how intercultural curriculum issues in higher education has been and could be further researched. It is important to note that the wider understanding of diversity is not the focus of the chapter, although it is acknowledged that the many faces of diversity (which includes racial, ethnic, gender, language and many other forms of diversity) are all intertwined with cultural diversity. In view of the many ways in which interculturalism and related concepts are understood, a brief overview is presented of the evolving terminology associated with

a context that includes more than one culture. Following on this, a characterisation of intercultural education is given that could enhance the infusion of interculturalism into the higher education curriculum. The next section presents an overview of salient and recent research on interculturalism in an education context and some characteristics and trends are highlighted. The consulted literature in general, and in particular the research overview, uncovered gaps and challenges. Directions are indicated in the final section of the chapter.

CONCEPT CLARIFICATION – THE JOURNEY TO INTERCULTURALISM

The terms that appear most often in the literature when discussing education in a context that involves more than one culture, are ‘multiculturalism’ and ‘interculturalism’. The ways in which these terms are understood, have evolved over time, having culture as the ‘mother’ concept. The literature shows a link between the concepts ‘multicultural education’ and ‘intercultural education’. These concepts also link with the broader notions of diversity and culture. This sub-section will therefore, first highlight diversity as the relevant umbrella concept, then focus on culture as the ‘mother’ concept of multi- and interculturalism and subsequently explore the concepts ‘multiculturalism’ and ‘interculturalism’ and how it links with internationalisation.

An understanding of diversity has developed worldwide to include many different dimensions of humanity, such as culture, race, class, gender, disability, age, sexual orientation, ethnicity, religion, socio-economic status, social and political affiliation and education (Narsee 2004). Increasing diversity in the same geographical areas (e.g. higher education institutions), and an increasing sensitivity towards these dimensions of diversity, has resulted in increasing activity relating to diversity. Cushner (1998:5-6) provides an exposition of how the varying causes of increased diversity in different countries, societies and communities, e.g. slavery, immigration or colonisation, co-determine the views these societies and communities have on strategies to accommodate their own particular type of diversity and on the implementation of these strategies.

This brings us to the concept ‘culture’. The literature presents two almost contradictory viewpoints on the conceptualisation of culture: on the one hand it is seen as a stable concept and on the other as a concept that changes over time. This is further complicated by the view that culture is difficult to define. Some decades ago, Kroeber and Kluckhohn (1952:181) defined culture as a stable concept:

[It consists of] patterns, explicit and implicit, of and for behaviour acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiment and artefacts; the essential core of culture consists of the traditional (i.e. historically derived and selected) ideas and especially their attached values; cultural systems may on the one hand be considered as products of action, on the other as conditioning elements of further action.

Tabane and Boucher's view (2006:554) concurs with this idea of stability, when they contend that perceptions of cultural representations could be interpreted to be permanently established. In contrast to this, Dasenbrock (1992:39) refers to culture as "a conceptual moving target ... an idea whose definition is contested and whose boundaries are mapped with difficulty". Florio-Ruane (2001) and Van Binsbergen (2003) support Dasenbrock's point of departure. Some of the dimensions of culture referred to in the literature include that culture is "webs of significance [man] himself has spun" (Geertz 1973:5); that identity plays a significant role in culture (Meade 1956; Schiefelin & Osch 1986); that it is both meaning and the process of making meaning (Florio-Ruane 2001:27) and that race and socio-economic class is intertwined with culture (Florio-Ruane 2001:78). Florio-Ruane (2001:27) also states that culture is actually what human life is all about and not about stereotyping. This links to the decades-old perspective of Goodenough (1976) that multiculturalism is the normal human experience.

When the normal human experience is monocultural, the challenges to education in general and higher education in particular are more limited than and differ in nature to those in a multicultural context. Various but related perspectives exist regarding the purpose of multicultural education, some of these being to implement change with the aim of facilitating educational equality (Banks 1995, 1999; Ladson-Billings & Tate 1995); reconstructing society so that individuals are developed to live their lives through critical and analytical social interaction (Sleeter 1996:38); facilitating mutual understanding and tolerance within a context of unity and diversity (Kamwangamalu 2001); transforming the unequal power relations that exist between and among individuals and groups (James, Ralfe, Van Laren & Ngcobo 2006:682) and/or creating a suitable learning environment for learners from diverse cultural backgrounds (Lemmer, Meier & Van Wyk 2009:3). All of the mentioned purposes of multicultural education are relevant to the South African higher education context, especially in making a contribution towards creating a South African society in which South Africans want to live today, as remedying and triumphing over the ravages of apartheid.

The understanding of multicultural education as reflected in the literature is also linked to its context in time and space, for instance targeting students outside the main stream, while in other contexts it is aimed at all members of society (Cushner 1998; Manalo 2006; Ngo 2010; Nkomo & Vandeyar 2009). This time-space link also explains, at least partially, why the consulted literature shows that there is preference in certain countries to use the term 'multicultural education' (parts of North America, Great Britain, Australia), while others prefer 'diversity' (parts of Europe) or 'intercultural education' (Canada, Japan, Africa, USA). Cushner (1998:2-8) provides an exposition of this link to time and space which could be a useful point of departure for future research, bearing in mind that new developments would have emerged in the past 15 years. This time-space link also points to different types of multicultural education as categorised by Van der Merwe (2004), namely affirmative multiculturalism (the

narrow, activist African-American and Feminist approach), liberal multiculturalism (the traditional, conventional approach – Euro-centric chauvinism), cultural relativism (the descriptive, uncritical approach – developing from the pitfalls prevalent in the previous two types) and critical multiculturalism (contextualised, critical and self-reflective with pluralism as the basic premise).

Research on the multicultural curriculum has explored various dimensions of the concept and how it is operationalised into practice. Some of these dimensions include identifying components of the multicultural curriculum (Gurin, Dey, Huertado & Gurin 2002; Lemmer *et al* 2009; Narsee 2004), space for reflection and discussions by students and teachers (James *et al* 2006) and the development of the multicultural teacher (Atwater 1995).

With reference to the difference between a multicultural and an intercultural curriculum, Lee (2005:201) indicates that the former covers multiple cultures, while the latter works through a dialogue between cultures. This resonates with Cushner's viewpoint that multiculturalism has to do with unrelated knowledge without any interconnection, while interculturalism "implies comparisons, exchanges, co-operation, and confrontation between groups" (1998:4). Thus intercultural education is pro-active and action-oriented. It is also the point of departure for collaboration between cultures. Bennett (1993:21) emphasises that such collaboration is not easy and not natural, as it provokes anxiety and should therefore be approached with great sensitivity. I am of the opinion that the South African university needs an intercultural rather than a multicultural curriculum, given this difference in approach. Cognisance must be taken of the anxiety as identified by Bennett, as this aspect is particularly relevant to the post-apartheid South African university.

When further investigating how the literature portrays interculturalism, the difference between multicultural and intercultural becomes more pronounced in many ways. 'Interculture' means any encounter between people from different cultures (Alfred, Byram & Fleming 2003:159) and therefore the higher education context is an intercultural teaching and learning space, usually configured in terms of (local) norms that silently privilege (home) students (Turner 2009:243) or the political majority, as these are the students who have cultural capital.

Portera (2008:484) is of the opinion that intercultural education and intercultural pedagogy are particularly relevant to today's global context with its concomitant junction of languages, religions, cultures and thinking. Whitsed and Volet (2010:3-4) contend that there seems to be a general view that significant intercultural interaction and a tolerance of diversity will automatically result from a diverse student and staff body. However, this view is in contradiction to the views of some earlier writers (Hewstone & Brown 1986; Wright & Lander 2003). De Vita and Case (2003:388) echo the contradicting view when they indicate that intercultural learning has to do with discovering differences and subsequently rising above such differences by authentic experiences of cross-cultural interaction through actual real tasks and intense

participation. Whitsed and Volet also state that the intercultural dimension pertains to “policies and processes that are aimed at reducing cultural distance and enhancing intercultural communication, competencies and engagement, and mutual reciprocal understanding” (2010:3). These viewpoints are potential indicators of what could be labelled intercultural spaces, with the potentialities further extended in the literature (as relevant to the school) to include classroom discipline (Lemmer *et al* 2009:117-127) and intercultural space through parental involvement (Lemmer *et al* 2009:131-145) – these could be investigated through further research in the higher education context.

The strong connection between internationalisation and interculturalism is evident from the literature cited previously as well as other literature (Appiah 2006; Botha 2009; Botha 2010; Hunter, White & Godbey 2006; Knight 2003; Otten 2003; Turner 2009). In countries like South Africa, Australia and the USA, the complexity of the context is taken to another level due to the multicultural nature of the domestic population (see for example Botha 2009; Botha 2010). In South Africa this complexity is further intensified through the impact of apartheid on society in general and university campuses in particular.

Knight and De Wit (1995) point out that one of the main purposes of internationalisation in higher education is to prepare staff and students to function successfully in intercultural contexts. The ability to do the latter is crucial for students as members of a community and wider society, both in the present and in the future, considering the highly visible, culturally diverse student population of most university campuses around the world. The internationalisation discourse is increasingly changing its focus, as universities are endeavouring to transform themselves by creating spaces in the curriculum that integrate the development of intercultural communication skills and enhance reciprocal intercultural understanding (Brown & Jones 2007). Whitsed and Volet (2010:5) are of the opinion that an “institutional environment where cultural inclusion is valued and culturally inclusive practices are embedded in the curriculum and embraced at all levels of the institution” is required in order to foster the development of cultural sensitivities and thus promote an appreciation of cultural difference. In the South African context this dimension takes on deeper meaning when considering the multicultural nature of the national society and the contrived historical separation of races and cultures.

Now that a broad base has been established for thinking about interculturalism, the next section provides a framework that could be used for characterising intercultural space in higher education.

INTERCULTURAL SPACE IN CURRICULA

There are conflicting opinions on the purpose of curriculum reform: on the one hand it is believed that the aim of such reform should be to eliminate xenophobia and ethnocentrism (Coulby & Jones 1995:107) by teaching about other cultures, while on the other hand it is seen as a strategy to enforce unity and homogeneity in the nation-state by ensuring that more of the same is perpetuated (Coulby 1997:7;

Jones 1997:3). Interculturalism could offer a vehicle to defuse this conflict, if one of the aims of education is to cultivate intercultural citizens. An intercultural citizen is defined as someone who supports the principles of a multicultural state, exhibits a range of more positive personal attributes towards diversity, who is curious rather than fearful about other peoples and cultures, who is open to learning about other ways of life, willing to consider how issues look from other people's point of view and who feels comfortable about interacting with people from other backgrounds (Kymlicka 2003:157). Lee (2005:203) indicates that a multicultural curriculum is a prerequisite for interculturalism, but the inverse is not necessarily true. MacPherson (2010:282) states that "when learners from diverse backgrounds come together, the curriculum becomes an intercultural practice regardless of the intention of the teacher, school, district, or system."

Creating space for interculturalism in the higher education curriculum should not be misconstrued as an 'add-on' approach, but it should rather be understood as thinking, talking and doing in an intercultural way – an infusion approach. Intercultural spaces in the curriculum are therefore not 'events' but are the result of a different approach to what we teach, why we teach what we teach and how we teach. Using these statements as a point of departure, the logic of the remainder of the chapter is outlined next.

To facilitate intercultural space in the higher education curriculum, a multicultural context must be changed into an intercultural context. Drawing on the characterisation of these two contexts presented in the previous sub-section, this implies that a context where more than one culture exist next to each other in the same geographical and time space (multicultural), must be transformed to become a context of discovery and transcendence of differences through communication and engagement, leading to mutual reciprocal understanding (intercultural). To facilitate this transformation, space needs to be created in the curriculum for own and other cultures to be explored, discussed, accepted, understood and appreciated. Florio-Ruane (2001) has described a set of strategies that would enhance intercultural spaces, namely "conversation and stories", "texts and contexts", "engagement", "thinking and re-thinking" and "knowing". Although she conceptualised these strategies for the school context, they are equally relevant to higher education, as will become apparent in the subsequent paragraphs. I will draw on the literature to show how intercultural spaces emerge in the curriculum by mobilising her strategies towards such transformation.

Conversation and stories

Waghid (2006:568) contends that South African university classrooms are places of multiculturalism and that civil interaction between them implies a connection with one another's stories. The use of conversations and stories to create space in the curriculum to explore own and other cultures and connect with each other in this way, is characterised in the consulted literature in several ways: it has to do with finding the origins of our identities (Florio-Ruane 2001:25); it demands that learning needs to be re-understood as interpretation rather than possession – the teacher does not

demonstrate knowledge that is already in place, but is a mutual learner with students whose lived experiences inform the curriculum (Dasenbrock 1992:39; Preece 2000:3); conversations and stories need to include interpretive discussion and reflective thinking (Florio-Ruane 2001:50); language is the vehicle for such conversations and stories, which in itself is a cultural expression (Cargill 2000:28; Nieto 2009); it has to do with the negotiation of meaning and acknowledgement that personal understandings are not natural or normal, but culturally made (Florio-Ruane 2001:32).

By establishing conversations and stories as an intercultural space in higher education, Waghid's argument that South African higher education should concern itself with teaching students to deliberate could also be served. He believes that it is "through deliberation that people engage with the possibility of coming to something new – a matter of connecting with one another, taking risks and simultaneously offering possibilities for a better future" (Waghid 2010:492).

Florio-Ruane (2001:85) is of the opinion that an expanded understanding of culture, diversity and education will develop through new cultural discourses in educational settings. An example of such a cultural discourse is offered by MacPherson who investigated "intercultural teaching through teachers' collaborative conversations about critical intercultural incidents in schools" (2010:271). Such conversations could be useful in the higher education setting, possibly including teachers as well as students. By discussing and reflecting on intercultural incidents, Florio-Ruane's idea of scrutinising narratives from a variety of cultures (some canonical ones and some less likely ones) in order to learn about culture will also be served (2001:48).

Florio-Ruane (2001:56) contends that encouraging teachers as practitioners to have conversations across boundaries, and analysing their own practice is one way of transforming contexts in order to learn about culture. In this process story and dialogue become intricately interwoven with each other and with context.

Texts and contexts

Florio-Ruane (2001:14) was intrigued by "the idea that cultural experience might be accessible to beginning teachers in literature and other artistic renderings of human life." This prompted her to consider the role of alternative texts and contexts as a way of facilitating intercultural education, thus including multiple voices and stories of culture. In this way, culture can be moved from the margins to the centre of teachers' work in literacy and learning (Florio-Ruane 2001:44). Using such alternative texts in higher education has the potential to create space in the curriculum to promote intercultural understanding and appreciation. This was found to discourage the use of stereotypes (McDiarmid & Price 1990). Several other studies confirm the value of using multicultural literary texts to facilitate intercultural understanding (Gere, Buehler, Dallavis & Haviland 2009:816; Nkomo & Vandeyar 2009:199).

In cases where cultures display extreme differences, texts might have limited value in efforts to transcend these differences. Mostafa (2006:36) found in a study that

explored the experiences of Arab Muslim graduate students at the University of Alberta, Canada, in connection with cultural differences and adjustment, language difficulties, supervision, differences of study system and funding, that difficulties with adjusting were made easier through interaction with, and thus mediation by, local Muslim communities and organisations. This finding is confirmed in a study by Rostron in Qatar with Muslim students which found that a Western curriculum was regarded as out-of-context and not readily accepted (2009:226).

Although the literature shows that the use of alternative texts enhances intercultural knowledge and appreciation, people will not readily discard their own values and replace them with those of another culture, which supports the principles of interculturalism. The promoters of interculturalism need to take cognisance of this and, when creating intercultural space, also create space for own cultures.

Engagement

Engagement further connects the threads of the web that enhances intercultural spaces in higher education, by immersing the participants in each other's realities. This could be challenging and even frightening to the participants. Florio-Ruane (2001:152) declares that it is difficult for educators (at school and higher education level) to come to terms with "their own biases and perspectives and coming to learn about these in dialogue with others whose backgrounds differ from their own". She refers to "dysconsciousness" towards issues of race, to a safe colour-blindness and avoidance of the topic of race. She believes that we could learn to speak about race through a sense of "passionate engagement" that would invite such a conversation and that this difficult conversation could lead to personal transformation.

Ditton's study on intercultural postgraduate research supervision found that supervisors need to develop intercultural competence in interacting with students to give guidance in acquiring skills of debate, conflict, reflection and difference, as these are the keys to problem-solving in the intercultural context (2007:50-51). This finding is echoed in a study by Meier (2007:659-660). Intercultural competence can, therefore, only result from intense engagement with the own culture and other cultures. Engagement can also be identified in the concept of 'connectedness', understood as community building, which is central to moral thought and practice (Bradley 2007; Frick & Frick 2010).

Thinking and re-thinking

The work of thinking and re-thinking emerges through engagement with conversations and stories, texts and contexts, from which knowing takes shape. The reference to a cosmopolitan pedagogy by Engelbrecht, Mafumo and Waghid links very well with this notion, when they state that it "provides spaces that are both comforting and unsettling, spaces that both disturb and enlighten, spaces in which students can experience one another and connect with the otherness of others – that is spaces in which they learn to become citizens of the world" (2009:223). The outcomes of the work of thinking and re-thinking are reflected in the knowledge of the own culture and other cultures.

First there is entry into the other culture through the conversations and stories, then immersion into the other culture through engagement, and from this emerges thinking and re-thinking towards new thinking.

Knowing

Knowledge as one of the roots of intercultural spaces in the higher education curriculum has at least two dimensions: firstly, the matter of whose knowledge we teach (which could include ways of knowledge) and, secondly, the knowledge we have of our own and other cultures (and this could include knowledge that would facilitate learning by students from other cultures). Both these dimensions have been explored in the consulted literature.

Apple (2000) refers to the matter of whose knowledge we teach and ways of knowledge as the intense curricular debates on what counts as knowledge. Almeida (2008) characterises interculturalism as a bridge by which to expand the ways of knowledge and contends that the university is a school that embraces all ways of knowledge and does not turn one way of knowledge into a universal one. Mitchell investigated the usefulness of “tapping into the epistemic reservoir of experiences and insights linked to communal knowledge/wisdom unique to the African American community” (2010:606).

The knowledge we have of our own *and other cultures* and how we *facilitate learning* by students from other cultures are discussed by a number of authors (Botha 2010; Cornbleth & Waugh 1995; MacPherson 2010; Magos & Simopoulos 2009; Mitchell 2010; Okorochoa 1997). Buehler, Gere, Dallavis and Haviland (2009:408) state that over and above being committed to culturally relevant pedagogy, it is important for school teachers to acquire cultural competence (“knowledge”) and also to focus on the challenges to actualise this competence.

A study done on the nature and content of the knowledge that enables academics in higher education institutions to encourage learning specifically for African American students provided outcomes that complete the set of intercultural spaces identified by Florio-Ruane (2001). It emerged from this study that “knowledge of the discourses of a student’s community of origin, discourses often based on collective experience, are a valuable resource to professors in their efforts to promote educational equity” (Mitchell 2010:604) and that improvisation can be linked to pedagogy to facilitate black students’ learning (Mitchell 2010:625). A clear link can therefore be identified between intercultural discourses (“conversations and stories”) and the knowledge needed to facilitate intercultural learning.

In spite of the value of mobilising conversations and stories, texts and contexts, engagement, thinking and re-thinking and thus coming to knowing about the cultures of the other and different ways of knowing, Nkomo and Vandeyar (2009) warn against adopting multicultural texts. Their concern refers to neglecting to teach children to read by shifting the focus to learning about other cultures by engaging with texts; neglecting

to teach children about music by shifting the focus to learning about other cultures through music; having culturally aware teachers rather than focusing on teaching. They are concerned that the focus will be to bring black and white children together in South African schools rather than “interrogating the quality of post-apartheid contact” (Nkomo & Vandeyar 2009:21).

The discussion above has shown that the strategies proposed to enhance intercultural space in the curriculum do not necessarily have to occur in a linear manner in the curriculum. They are never fully concluded; they could simultaneously contain each other or overlap with each other or exist independently from each other while still being interdependent and they feed inwards into each other and also outwards into the transforming context.

To actualise the above-mentioned (or alternative) strategies for enhancing intercultural curriculum space, it could be useful to consider relevant completed research. The next section provides an overview of some trends in and examples of recent research on interculturalism that could be linked to the university and/or curriculum context.

INTERCULTURALISM AND CURRICULUM INQUIRY

In the review of relevant literature (mainly published during the past decade), certain themes in intercultural research emerged, namely culturally relevant pedagogy, the importance of the own culture and the other culture in relation to each other as well as evaluation of programmes that were developed to promote interculturalism. In addition to the themes, some patterns pertaining to research methodology could also be identified from the consulted literature. All of these are briefly discussed below and the section is concluded with some remarks on indigenous research methodologies.

Culturally relevant pedagogy (CRP)

DeCuir-Gunby, DeVance Taliaferro and Greenfield indicate that it is important to create culturally relevant school contexts, as this approach could facilitate academic, social and cultural success through making a cultural connection to schools (2010:185-186). Although their research was conducted in the school context and in particular in the USA, further research could test their findings in other contexts as well. They show that culturally relevant pedagogy has three basic tenets, namely academic success (all children have the potential to be academically successful – challenges deficit-based learning), cultural competence (educators must appreciate cultural strengths of learners and develop classroom techniques that incorporate these principles) and critical consciousness (help students develop the habits and tools to become active citizens of a global community – needed to promote social justice) (DeCuir-Gunby *et al* 2010:186).

Young (2010) conducted research with the purpose of defining, implementing and assessing culturally relevant pedagogy in an elementary school setting in the USA. This is a significant piece of literature with references included on what culturally relevant

pedagogy is (Ladson-Billings 1994, 1995a, 1995b, and other studies that applied her theory as is or slightly adapted; also studies with their own theoretical framework, all as cited in Young 2010). Young categorised data under the three CRP tenets referred to by DeCuir-Gunby (academic success, cultural competence and socio-political consciousness). The main findings were, firstly, that it is important to develop a shared understanding of culturally relevant pedagogy before applying CRP to lesson planning and, secondly, that teachers experienced the application of the theory on CRP in the classroom as an impossible task (Young 2010:257).

Mitchell's research (done in the USA) also links indirectly with CRP. He found that improvisation in teaching can be linked to pedagogy to facilitate black students' learning (2010:625) and that "knowledge of the discourses of a student's community of origin, discourses often based on collective experience, are a valuable resource to professors in their efforts to promote educational equity" (2010:604).

Own and other cultures

The crux of this theme was described almost two decades ago by Zeichner, who came to the conclusion that own cultural identities could emerge and own attitudes and beliefs about other cultures investigated through studying other cultures (1993:20). Florio-Ruane echoes this in more poetic language when she says that "cultural study can concern itself with how people make meaning in particular, local contexts ... also be alert to how those local webs of meaning are networked as human beings make their way through everyday lives and lifetimes". She acknowledges that we are not "parallel players" who endlessly spin and repair "our cultural webs, oblivious to and disconnected from the spinners working on the webs a few feet away" but that our "webs are linked in cultural networks" (Florio-Ruane 2001:27).

Dela Cruz, Salzman, Brislin and Losch (2006) also found that it is crucial to have knowledge of the own culture and other cultures in order to facilitate interculturalism. They conducted a study that aimed to develop a foundation for the development of an Intercultural Sensitizer (ICS). These authors argue that counsellors, academic advisors and educators working with Hawaiian students in a university setting need to possess a firm grasp of the indigenous population and should also have a sound understanding of the differences between Western and Hawaiian education philosophies and values (Dela Cruz *et al* 2006:121). Similarly, Trahar (2009:1) explored different realities and knowledges about learning and teaching in a UK higher education context while doing her doctoral research with postgraduate students from many different cultures.

Programmes to teach with an intercultural approach

Two 2009 publications were consulted that report on university programmes that provide intercultural education, while a third 2009 publication, investigating a single module in a taught Master's programme, discussed research on the challenges that could occur when curriculum is used to enhance cross-cultural integration. Mendoza Zuany (2009) reports on a BA programme in Intercultural Management for

Development that is offered at the Intercultural University of Veracruzana ('Universidad Veracruzana Intercultural' – UVI), training people as intercultural mediators to deal with diversity. The curriculum has five specialisation areas (health, rights, languages, heritage and sustainable development) with much potential for inter- and cross-cultural dialogue; it also recovers the value of indigenous knowledge (Mendoza Zuany 2009:215). The establishment of this university as one of nine intercultural universities, supported financially by the government, situated in rural and indigenous areas offering programmes catering for the needs and demands of the indigenous communities, aims to provide intercultural education for all (Mendoza Zuany 2009:214). This is an example of creating intercultural space – nationally, institutionally, as well as in the curriculum.

The second publication reports on the development and implementation of a five-year degree programme at the Federal University of Minas Gerais, Belo Horizonte, Brazil. This programme aims "to graduate and qualify indigenous teachers with an intercultural approach to teach in their secondary schools" (De Rezende 2009:206). The programme is part of a move that was initiated by the indigenous leadership of several ethnic groups in Brazil "in order to guarantee their constitutional right to receive appropriate education" through a "differentiated public school with indigenous teachers and managers" (De Rezende 2009:204). Among other activities, teacher education programmes were developed to supply suitably qualified teachers for this school. The main purpose of these teacher education programmes was to adapt existing methods, curricula, school calendar and other related matters to diverse cultures (De Rezende 2009:204). It is also noteworthy that as a result of this programme, teachers studied their own culture (De Rezende 2009:205). The reader who is interested in such a programme is advised to refer to this publication to familiarise him-/herself with the way in which intercultural spaces become evident in this curriculum through academic activities that focus on indigenous rights, production of didactical materials, indigenous organisations, indigenous schools, community radio, indigenous languages and literature, indigenous art, sustainable economics, indigenous health, land use and medical centres (De Rezende 2009:206).

An important finding identified by De Rezende's research is that there is an indigenous concern that universities function separately from the community, which is foreign to the way the indigenous world thinks and does things. The university should become part of the community and the community must also play a role in the university (De Rezende 2009:205).

The third 2009 publication used a case study of a cross-cultural management module that is part of the curriculum of a taught Master's degree in international management in the UK (Turner 2009:244). The module content dealt with intercultural management and facilitated intercultural learning among participants. The research found that although the module achieved its learning aims, it failed to enhance student integration (Turner 2009:252).

A South African study reports on the process of reviewing the curriculum of an existing university programme with the purpose of transforming the underpinning pedagogy as well as the curriculum structure and outcomes, which subsequently impacted on a change in the knowledge sources, teaching and learning strategies and assessment approach (Botha, in press). This reviewing process had to build on, *inter alia*, the multicultural nature of the student population and their diverse geographical contexts (Botha, in press).

Trends in research methodology

Two studies reported on the development of an instrument to determine intercultural sensitivity. A research project conducted by Dela Cruz *et al* (2006:120) establishes a platform for the development of an Intercultural Sensitizer (ICS) for counsellors, academic advisors and educators working in Hawaiian higher education. Spinthourakis, Karatzia-Stavlioti and Roussakis (2009:267) write about research that assessed intercultural sensitivity of Greek student teachers, using an adjusted version of Chen and Starosta's Intercultural Sensitivity Scale (based on Bennett's Inventory on Intercultural Sensitivity).

Another interesting instrument was used in research conducted by Velo in 2007. He explored the values that are culturally linked to the notion of excellence in higher education at three different locations on three different continents: Buenos Aires (Argentina), Coventry (UK) and Shanghai (China) (Velo 2007:16). He contends that the new reality of developing international links between universities (through e.g. franchised and joint degrees, academic and student exchanges) demands the "homogenization of the curricula delivered as well as a compatible process of evaluation across borders" and hence asks, "How could we achieve global excellence if what we understand by this term is culturally sensitive?" (Velo 2007:15). As methodology this study used the Repertory Grids tool, which was developed by psychologist George Kelly in 1955, based on Western American values and derived from the constructivist school of thought (Velo 2007:16). This tool has been widely used in various disciplines and is based on the idea that people understand reality "through aligning concepts in their minds in order to make sense of the world" (Velo 2007:16). The methodology has been investigated for validity for qualitative research in general and cross-cultural studies in particular (Hunter & Beck 2000 as cited in Velo 2007) and tested and re-developed (Reeve, Owens & Neimeyer 2002). This seems to be a useful methodology in intercultural studies, especially to identify determinants for culturally sensitive curricula.

Popular research methodologies employed in research that could be linked to the intercultural curriculum are ethnography (Florio-Ruane 2001; Mendoza Zuany 2009; Ngo 2010), auto-ethnography (Trahar 2009), case studies (DeCuir-Gunby *et al* 2010; Turner 2009; Young 2010 – critical case study), action research (Frick & Frick 2010; Young 2010) and descriptive studies (refer to Young 2010). The gathering of data was done mainly by interviews (DeCuir-Gunby *et al* 2010; Ditton 2007; Gere *et al* 2009;

Huidor & Cooper 2010; Magos & Simopoulos 2009; Mitchell 2010; Mostafa 2006; Ngo 2010; Tabane & Bouwer 2006; Trahar 2009), field notes (Florio-Ruane 2001; Gere *et al* 2009; Huidor & Cooper 2010; Ngo 2010), observations (Magos & Simopoulos 2009; Mitchell 2010), document analysis (Biseth 2009; Botha 2010; Florio-Ruane 2001; Gere *et al* 2009; McMillon 2009; Meier 2007; Ngo 2010; Otten 2003; Whitsed & Volet 2010), discourse analysis (Castro 2010; Florio-Ruane 2001; McMillon 2009), and narrative inquiry (Cargill 2000; MacPherson 2010; Trahar 2009). The understanding of the last-mentioned three data-gathering strategies could overlap, as all three have been applied to the written word (documents such as e-mails, essays, letters, official documents and others) as well as the spoken word (conversations, interviews, presentations). Young (2010) also report on studies that used case studies, ethnography and descriptive studies, gathering data through interviews, observations, journaling, examining of documents, participant observation and action research (self-reflection). Young's study employed collaborative inquiry as a methodology.

I found the use of letters as a data-gathering instrument in a pen pal research project to be intriguing. The project aimed at "facilitating a risk-free cultural exchange between students living in two very different worlds – a predominantly White university and a predominantly Black urban elementary school ... openly and honestly sharing information about their cultures ..." (McMillon 2009:122). The findings of the discourse analysis of the letters helped teachers to develop skills and obtain crucial cultural knowledge that could help to prepare them to effectively teach the diverse student body in the USA (McMillon 2009:119).

Another interesting methodology was employed in a study that investigated racial integration in schools. The methodology of portraiture "draws attention to the outstanding qualities of high schools, studying excellence rather than pathology" (Nkomo & Vandeyar 2009:64). Citing several scholarly writings that spans the past decade, these authors indicate that this is a well-established methodology.

Florio-Ruane chose an unusual research site for an ethnographic research project (2001:49-72), using a teachers' reading club as the site of data collection. The purpose of this research was to investigate the use of autobiographies as texts to learn about culture to facilitate improved teaching in a multicultural context. The sources of data were meeting tapes, field notes and the writing in members' sketch books. Working assumptions were formulated based on the data, which were revised using the technique of constant comparison as the researcher listened and interpreted the conversations that took place during the club's meetings. Thus the focus of the research changed and developed as the study progressed. The research showed that reading and responding to selected and relevant texts have great potential for learning about culture in "complex, critical, and dialogic ways" (Florio-Ruane 2001:71).

Otten (2009) also used a rather less-than-usual way to analyse formal and informal learning processes in his study on interculturality in academic communities of practice.

He employed Wenger's concept of communities of practice as a heuristic background for this analysis.

I end this section with a reference to indigenous research methodologies, as these could be of much use in research on intercultural education. Denzin, Lincoln and Smith (2008) include a number of chapters in their book on the implementation of critical indigenous methodologies. This implementation is believed to happen by transforming, rereading and criticising existing research practices. They refer specifically to life story, life history, ethnographic, auto-ethnographic, narrative, visual and postcolonial methodologies. Denzin *et al* (2008:323) remark on the characteristics of critical indigenous methodology in the following way:

- They implement indigenous pedagogies.
- They are fitted to the needs and traditions of specific indigenous communities.
- This fitting process may include creating new methodologies, as well as modifying existing practices.
- Pragmatic and moral criteria apply.
- These practices and modifications must produce knowledge that will positively benefit this indigenous community, and if so, which members? This answer cannot always be given in advance, as the meaning of any set of actions is only visible in the consequences that follow from that action.

Finally, I mention some critique of research into culture, and by implication into intercultural matters, as it is not always viewed as promoting a better understanding of the subject. Leacock (1971, as cited in Florio-Ruane 2001:37-38) is of the opinion that the application of a cultural explanation to the experiences of the poor is nothing else but another way of labelling people. Pratt (1986:32-33) contends that some important knowledge on culture is sometimes omitted or impoverished by poor writing. Florio-Ruane (2001:10) states that "in attempting to describe cultural experience objectively, authors often compromise the narrative power of their own and others' experience of the process of living culture" and "cultural study is inevitably partial, interest-driven and value-laden."

CHALLENGES AND DIRECTIONS

When I engaged with the literature on intercultural education, areas in which future research needs to be conducted became apparent. These further research areas were identified by the authors referred to in this chapter, and when the full picture started emerging, I was able to identify a few additional future research directions.

Some concerns that need to be investigated as expressed by authors

The first type of concern relates to an absence of intercultural education. Wekker and Lutz (2001, as cited in Nkomo & Vandeyar 2009:152) contend that race or ethnicity is ignored as "ordering mechanisms" for the curriculum and that a deficit discourse is

the main mode relevant to students and academics of colour in the higher education sector in the Netherlands. This matter needs to be further explored in national and international contexts. In the South African context this concern is particularly alarming, as it could be a manifestation of an attitude that glosses over cultural diversity. Since this possible non-acknowledgement of cultural diversity would be an obstacle in progressing towards an equitable society in South Africa it needs urgent attention from researchers and practitioners.

A second type of concern relates to the fact that intercultural education sometimes targets only part of the relevant people. De Rezende highlights the need to expand the experience of an intercultural programme constructed to educate indigenous students to non-indigenous students; also to improve the “level of intercultural dialogue with other culturally excluded groups in order to reach all the students of the university” (2009:208). Once again, the multicultural nature of the South African population is not mainly the result of recent immigration, but rather of historical immigration of a few centuries ago. The then immigrant population has since become part of the national population, which implies that multiculturalism is inherent to the country. This calls for a different approach to intercultural education than if the other cultures are from recent immigration.

Another type of concern deals with the unintended implications of multi- and intercultural education. Narsee believes that multicultural education could have the potential to trivialise culture, thus contributing to stereotyping (2004:88); Nkomo and Vandeyar fear that some approaches to multicultural education do not embrace a commitment to social and economic justice (2009:19) and Turner sees a challenge in the fact that when the focus is deliberately placed on cross-cultural integration, it might highlight insider-outsider attitudes rather than resolve them. When using the curriculum to promote student integration, its objectives must be clearly articulated and understood in “high-performance, intensive educational environments, such as in postgraduate programmes” (Nkomo & Vandeyar 2009:292).

A fourth area that needs further exploring has to do with research into improving existing intercultural education efforts. Turner identified some such challenges, namely to determine whether cultural integration supports academic success; to devise ways in which attempts by the curriculum to facilitate student cultural integration are supported, evaluated and assessed; how academics and students can be assisted in attaining the appropriate skill and social competence levels linked to intercultural communication, as required for successful interaction in diverse groups (“uniting formal demands of the curriculum with complex classroom dynamics”) (2009:242). Castro conducted research on the views of pre-service teachers about teaching culturally diverse learners. He identified three areas that need to be researched, namely the impact of prior experiences and social interaction with culturally diverse others on people’s openness to diversity, particular teaching practices and curricular components that foster changes in the beliefs and attitudes of teachers, and the ways in which teachers

interact with notions of critical multiculturality. This is especially relevant to teachers of colour – they are to be the subjects/actors in the research, not only the objects (Castro 2010:207).

A few gaps emerging from the bigger picture

The research reported by both Mostafa (2006) and Rostron (2009) clearly indicate that very little is known about how to negotiate different value systems in the intercultural curriculum. The closer the value systems are to each other, the easier it becomes to accommodate both (or more) systems, but when the differences are more pronounced, huge challenges emerge.

At the start of this chapter, various interrelated concepts were discussed and reference was made to a time-space link. Cushner's exposition of this link to time and space (1998:2-8) was highlighted as a useful point of departure for some further research. However, many new developments would have emerged in the past 15 years – these developments need to be researched so that the time-space link can be updated. This is especially relevant to South Africa.

Another gap has to do with the way in which research on interculturalism in higher education is very often conceptualised within the context of the internationalising of higher education, especially in non-South African contexts. One example of this is Turner's illustration of the challenges "inherent in supporting cross-cultural learning within diverse cohorts", with one such challenge being to "internationalize local student populations, giving them through their education intercultural competence or so-called internationalization at home" (Turner 2009:240). Another (almost converse?) dimension of this is apparent in the work of Whitsed and Volet (2010), who found that internationalisation in the Japanese higher education context gives limited attention to intercultural dimensions.

In a study that investigated which criteria South African students used when selecting a higher education institution at which to further their studies, it was found that the multi-cultural nature of an institution was the most powerful selection factor among black South African students (Jordaan & Wiese 2010:546). This points to the need for research (both nationally and internationally) on what university contexts students of different cultures find attractive, as such research should shed light on what they regard as true intercultural institutions.

Finally, one of the most glaring gaps in the intercultural research conducted over the recent decade or two is the dearth of work on the infusion of interculturalism into the curriculum, and more specifically, on interculturalism in higher education. Most of the research done on interculturalism was contextualised in schools and although it is possible that many of the findings are relevant to the higher education context, this needs to be confirmed by replication in the latter context before such findings can be acted upon. Such research should include work on actual ways to

infuse interculturalism into the curriculum, for example, how communities of practice (Otten 2009) and service learning (Cross, Mkhwanazi-Twala & Kline 1995) could be conceptualised to serve this purpose.

CONCLUSION

This chapter has touched on some aspects of intercultural education in higher education as reflected in the recent literature, without any claim to being complete or presenting a definitive viewpoint. The challenges and directions that emerged from the mapping of the literature overview are of particular significance to South African intercultural education and need to be taken up urgently by policy-makers, researchers and practitioners. The importance of developing and implementing strategies for infusing interculturalism into the curriculum must not be under-estimated. This holds true for South African as well as international higher education as it would contribute to a much improved study experience for such students and to the evolution of a truly equitable society across the world.

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8

TRANS-DISCIPLINARITY AND CURRICULUM SPACE IN HEALTH SCIENCES EDUCATION MASTER'S PROGRAMMES

Eli Bitzer

INTRODUCTION

The level of complexity of modern-day challenges demands a wider approach than discipline-specific measures can provide (Max-Neef 2005). These measures no longer suffice when they involve major environmental, human and social challenges. Also, relatively minor challenges such as emerging health issues, how to provide students with powerful learning opportunities and how to facilitate learning in particular social and institutional contexts are difficult to solve at the disciplinary level. Most of these challenges require trans-disciplinary approaches. Ironically, many higher education institutions still maintain mono-disciplinary courses and programmes and expect of students to do the transfer and integration of knowledge among disciplines or fields of study themselves. Moreover, the situation is not solved by creating teams of 'specialists' to address complex problems. An accumulation of visions or insights might emerge from each participating discipline, but an integrating synthesis is not achieved through the accumulation of 'different brains'. Integration and synthesis rather seem to be more productive 'within each of the brains' (Max-Neef 2005:5) and thus higher education programmes need to be oriented in ways that make trans-disciplinary knowledge possible.

In this chapter the concepts of 'trans-disciplinarity' and 'curriculum space' are discussed in the context of a cross-faculty coursework and research master's programme where these concepts are seen as being represented by the possibilities and realities of curriculum integration (Nowotny 2006) as well as by the problem-solving characteristics of the curriculum in question.

Conceptual framework

The differences among mono-disciplinarity, multi-disciplinarity, pluri-disciplinarity, inter-disciplinarity and trans-disciplinarity lie in the amount of association and integration of disciplinary knowledge (Naiman 1999; Metz 2001; Max-Neef 2005; Parker 2008). For instance, 'pure' disciplinarity is about mono-disciplinarity, which

represents subject specialisation in isolation. A student may, for instance, study one discipline or subject without the need for knowledge about other disciplines or subjects. This implies that disciplinary knowledge is seen as only horizontally connected (i.e. next to one another without necessarily relating to one another). In the case of multi-disciplinarity, a programme of study might involve more than one discipline without making connections between them, or where multi-disciplinary teams of researchers might carry out their analyses of one or more problems separately without any co-operation, integration or synthesis. Pluri-disciplinarity, on the other hand, implies co-operation between disciplines without coordination, but where the study of each one of the disciplines plays a part and reinforces the understanding of the others (Max-Neef 2005; Parker 2008).

The concept of inter-disciplinarity is organised at more than one hierarchical level (Max-Neef 2005). The coordination is between at least two and sometimes three or four levels of knowledge where the lower level is presented as empirical knowledge, the next level as inter-disciplinary purposive or pragmatic knowledge, the third level as inter-disciplinary normative knowledge and the fourth level as inter-disciplinary or values knowledge. This implies that the purpose or aim of each level of knowledge is defined by the next level of knowledge. For instance, a field of theory and practice such as medicine or health sciences defines the purpose of biology, chemistry and psychology and so forth within a particular curriculum. It thus seems clear that there can be no mention of inter-disciplinarity without clearly defining knowledge at a next hierarchical level.

This much simplified explanation of inter-disciplinarity sets the framework for explaining the phenomenon of trans-disciplinarity. Trans-disciplinarity is the result of coordination between all hierarchical levels of knowledge which needs to be defined in a completely different way (Max-Neef 2005). Figure 8.1 shows that the disciplines at the base of the pyramid describe the world as it is or as it is observed through, for example, disciplines such as physics, chemistry, geology and others.

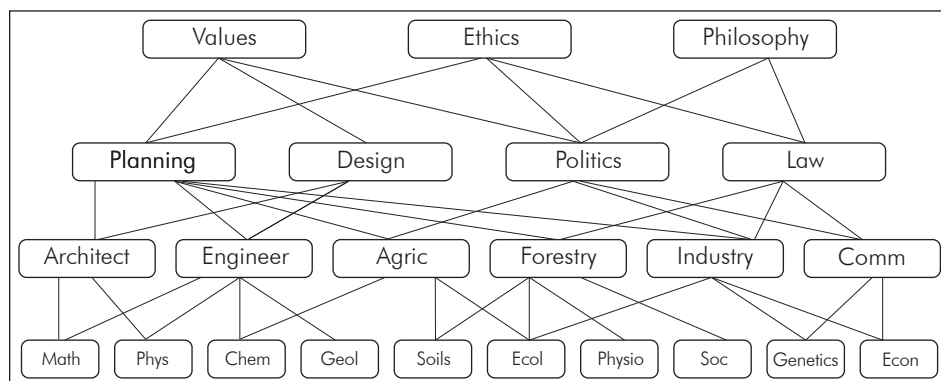


FIGURE 8.1 Examples of trans-disciplinarity in curricula

To explain this 'hierarchy of knowledge' the following examples might be offered: The lowest level asks and answers the question: *What exists?* and the organising language is that of disciplinary logic or 'the disciplines'. The next level is mainly composed of technological (or applied) fields of knowledge and asks and answers the question (stemming from the empirical or disciplinary level): *What are we capable of doing?* The organising language is cybernetics that emphasises only the mechanical properties of nature and society and might be represented by fields of knowledge such as architecture, engineering, agriculture and others (Max-Neef 2005).

The normative (third) level asks and answers the question: *What is it we want to do?* An example may be the application of environmental impact assessments. The organising language at this level mostly has to do with conceptual organisation, which might be represented by areas of study such as planning, design, politics, law and others. At the (fourth) value level the prime question is: *What should we do?* or *How should we do what we want to do?* It goes beyond the present and the immediate, while its organising language should be some kind of 'deep ecology' that culminates in broad fields such as value studies, ethics and philosophy (Max-Neef 2005:9).

In most instances universities do not support trans-disciplinarity easily, particularly at the undergraduate level because academic units and programmes are mostly organised around isolated disciplines, making it virtually impossible to change traditional structures radically. Furthermore, the internal resistance to change may become insurmountable because of struggles over academic prestige and related issues. In an epistemological sense, Max-Neef (2005:15) refers to 'weak trans-disciplinarity' as a practical way of tackling problems in a more systematic way. This is helpful, but not sufficient, as 'strong disciplinarity' is obviously needed to extend the curriculum into different levels of reality.

Linked to trans-disciplinarity, but not necessarily so, is the principle of knowledge relation. Relating one body of knowledge to other bodies of knowledge in the formation of curricula is the focus of Max-Neef's (2005) argument. Two important relational factors are (1) the degree of integration between different knowledge domains and (2) progression within the domain itself. Therefore, a curriculum may be understood as strongly or weakly classified and as strongly or weakly framed (Nowotny 2006). A strongly classified curriculum is defined as one that has clearly delineated domains of knowledge with strong boundaries between them. Conversely, a weakly classified curriculum is understood as having weak boundaries between the different knowledge domains. While a strongly framed curriculum is defined as a programme of study in which students have limited control over the selection of content and the way in which it is organised in respect of the pedagogical relationship, a weakly framed curriculum is characterised by greater control by students over content, organisation and pacing (see in particular Bernstein 1996,2000).

To summarise the two main positions relevant to this chapter, namely strong and weak trans-disciplinarity (Max-Neef 2005) and classified and framed curriculum spaces

(Bernstein 1990, 1996, 2000), Table 8.1 portrays a conceptual framework used for a small-scale investigation into a postgraduate health sciences education curriculum that served as the unit of analysis in this study.

TABLE 8.1 A conceptual framework of key operational concepts

Weak/strong trans-disciplinarity (T-D) <i>(e.g. Max-Neef 2005)</i>	Weak T-D Disciplines prominent in the curriculum are unrelated and may not be able to solve complex problems.	Strong T-D Disciplines are integrated in the curriculum and geared to solve complex problems.
Curriculum space <i>(e.g. Bernstein 1990, 1996, 2000)</i>	'Classified' space Strongly and tightly classified knowledge domains are well delineated and boundaries are strong and tight (impermeable).	'Classified' space Weakly and loosely classified knowledge domains are not well delineated and boundaries are weak and loose (permeable).
	'Framed' space Strongly and tightly framed knowledge domains are those where teachers and students have little control over content, organisation and pacing.	'Framed' space Weakly and loosely framed knowledge domains are those where teachers and students have greater control over content, organisation and pacing.

Before discussing the application of this conceptual frame, the context and characteristics of the programme and the module in question need some explanation.

CONTEXT

The programme aims and content of the MPhil in Health Sciences Education (HSE) at Stellenbosch University are shown in Table 8.2. The total study time accounts roughly for 1 800 hours of teaching, learning and assessment (mainly shorter assignments) as well as a larger research component of 30%. The first student intake in 2008 comprised seven students and participation trebled to 21 students in 2009 and tapered off to 16 students in 2010.

The unit of analysis in this study was the module or study block 'Curriculum Analysis in Health Sciences Education' which is offered in the second year of study. Three other academic staff members (two from Stellenbosch University and one from abroad) are part of the module team. Seven students in their second year enrolled for the module which comprises one full day of class contact and six weeks of electronically mediated learning, culminating in an assignment that represents the summative assessment task for the module. Six of the seven students who participated in the module between February and April 2010 passed the assignment. The students are all professionally qualified HSE practitioners and all have senior teaching positions in their respective fields in health sciences education.

TABLE 8.2 Outline of the MPhil (Health Sciences Education) programme at Stellenbosch University

Programme aims	
<ul style="list-style-type: none"> ▪ Promote excellence in education, research and community service in the field of HSE. ▪ Facilitate research and academic reflection to contribute to the body of knowledge in HSE. ▪ Promote a rich learning environment, including trans-disciplinarity and international participation and inputs. ▪ Develop HSE leaders who can contribute to evidence-based practices in HSE. 	
Modules (Year 1)	Credits*
Contextualising HSE	5
Learning in HSE	15
Educational research for change in HSE	10
Research assignment (conceptualisation and planning)	15
Facilitating learning in HSE	15
Research methodology	10
Elective 1: Skills development in HSE	10
Elective 2: Leadership in HSE	10
Modules (Year 2)	Credits*
Learning and teaching for primary health care	15
Curriculum analysis in HSE	15
Research assignment	45
Assessment in HSE	15
Elective 3: Personal and professional development	10
Elective 4: e-Learning	10
Total credits	180

* One credit equals approximately 10 hours of teaching, learning and assessment.

METHOD

The limited survey employed qualitative methodology aimed at investigating the experiences of three tutors and six MPhil (HSE) students in 2010. In-depth e-mail conversation techniques were employed for data collection and involved exchanges over a period of more than a month. This way of data gathering proved to be appropriate due to its flexible nature and interactivity. Two sets of key questions (one set for tutors and one for students) guided conversations and probes were used where necessary and appropriate.

Questions to staff

Tutors were asked to respond to the following two questions based on their experience of (a) the programme at that stage and (b) more specifically, their experience of the completed module 'Curriculum Analysis in HSE':

1. (a) Would you describe the MPhil (HSE) programme in total as of a weak or strong trans-disciplinary nature (i.e. disciplinary knowledge in the programme is not well integrated or well integrated)? Why?
(b) Would you describe the module 'Curriculum Analysis in HSE' as of a strong or a weak trans-disciplinary nature? Why?
2. (a) Would you describe the MPhil (HSE) programme in total as strongly or weakly classified and framed? Why?
(b) Would you describe the module 'Curriculum Analysis in HSE' as strongly or weakly classified and framed? Why?

Questions to students

Without providing any background information and with the aim of focusing primarily on students' perceptions and experiences of the module, the following five simplified questions were posed to the six students who had completed the module assignment successfully:

QUESTION 1: Was the module useful to your work as an educator in Health Sciences Education? Can you briefly say why (not)?

Question 2: Did the module contain too much or too little or just the right amount of educational material (i.e. literature and inputs from Education)? Why would you say so?

Question 3: Did the module contain too much or too little or just the right amount of health sciences material (i.e. literature and inputs from Health Sciences)? Why would you say so?

Question 4: Did you feel 'boxed in' by the module in the sense that your own manoeuvrability or creativity was limited? Why would you say so?

Question 5: Do you think that the Curriculum Analysis module (a) represents an example of trans-disciplinarity or (b) is the knowledge in this module not really integrated?

Analysis of the electronically generated data was inductive, looking for trends and patterns that could yield insight into the curriculum experiences of both tutors and students. Analytical and interpretive processes were followed, firstly by familiarisation through several readings of the responses. Data was then classified into categories and themes in accordance with the questions asked, which were subsequently explored more closely and finally interpreted (Terre Blanche & Durrheim 1999).

RESULTS

The three tutors responded in varied depth to the two questions. Tutor 1 saw the programme and the module in question as 'a hybrid, apparently not strong in trans-disciplinarity'. In his view there is some tension between education as a discipline and

health care as a separate field, although knowledge about learning and teaching are beneficial to health professions education. He emphasised that the health professions have a strong culture and 'will only accept strongly contextualised advice'. The challenge seems to make educational expertise in a programme such as the MPhil (HSE) relevant to health professionals and if it remains theoretical, or if disciplinary knowledge is not translated and integrated, it will not be seen as valuable.

Tutor 2 saw traces of trans-disciplinarity in both the programme and the module. Asked why, this tutor responded by saying that 'education as a discipline is apparently somewhat integrated into health sciences education'. Also, the programme would be unable to stand on its own if education as a discipline did not play a role in knowledge construction. This integration provides 'a wider perspective' as health education professionals do not generally have any background in educational studies. He also saw both the programme and the Curriculum Analysis module as weakly classified and framed as the 'relevant educational knowledge is not necessarily confined to health sciences education but has wider applications to other programmes and modules'. According to this tutor, students have ample opportunities to explore and apply the gained knowledge freely within their own contexts.

Tutor 3 regarded the MPhil (HSE) programme (the programmatic context for the Curriculum Analysis module) as characterised by signs of strong trans-disciplinarity, 'especially in modules where the focus is on generic principles related to education in a broader sense'. He felt that in some of the modules, however, the trans-disciplinarity is bound to be weaker as they focus on aspects that are unique to Health Sciences as a knowledge field (e.g. modules such as Learning and Teaching for Primary Care). Another example of weaker trans-disciplinarity might be within modules such as Assessment in HSE where specific issues of the assessment of clinical skills are dealt with. Conversely, the module Curriculum Analysis in HSE was seen as having strong trans-disciplinarity, except when dealing with the analysis of the clinical training component of the HSE programme. This tutor also saw both the MPhil programme and the Curriculum Analysis module as being generally weakly classified, but strongly framed, since while tutors have a fair amount of control over content, students do not (except in their research assignments). In his view students have little control over organisation and pacing as the programme committee takes the major curriculum decisions.

Five of the six students who completed the module successfully replied to the questions posed (see Table 8.3).

TABLE 8.3 Summarised student responses to questions on trans-disciplinarity and curriculum space in one MPhil (HSE) module

Respondent	Question 1	Question 2	Question 3	Question 4	Question 5
	Was the module useful to your work as an educator in Health Sciences Education? Can you briefly say why (not)?	Did the module contain too much or too little or just the right amount of educational material (i.e. literature and inputs from Education)? Why would you say so?	Did the module contain too much or too little or just the right amount of health sciences material (i.e. literature and inputs from Health Sciences)? Why would you say so?	Did you feel 'boxed in' by the module in the sense that your own manoeuvrability or creativity was limited? Why would you say so?	Do you think that the Curriculum Analysis module (a) represents an example of trans-disciplinarity, or (b) is the knowledge integrated?
1	Yes	Right amount	Right amount	Yes, quite 'boxed in'	Not integrated
2	Yes	Right amount	Right amount	No, not limiting at all	Integrated
3	Still limited knowledge	Too much	Right balance	Struggled	Integrated
4	Yes	Right amount	Right amount	No	Integrated
5	Yes	Too much	Right amount	No	Not integrated

Table 8.3 shows that, in response to question 1, all but one student respondent considered the module as being useful for their educational practices. However, another student (Respondent 3) reported that her knowledge was still limited. As an example of a positive response, Student 1 had the following to say about the usefulness of the module:

Yes, the module was useful. Curriculum analysis was always a 'fuzzy' area for me, and I did not have the capacity to understand why a curriculum had to be analysed. By completing this module I became aware of the importance of any 'curriculum analysis event', and the skills that I learnt in the process will be transferable to any academic environment, inside and outside of health sciences. I am proud that I could analyse the MB ChB curriculum as part of the modular requirements and in the short time provided.

On whether the module contained too much education or health sciences content (Q2 and Q3), the students' responses varied. While three students reported that the education material was just right for them, two said it was 'too much'. For instance, Student 2, who said that the educational knowledge was too much, had the following explanation:

I do realise that the standard for this module is at the master's level. However, I do not feel that I have mastered the educational content. For me personally, I would have managed two or three smaller assignments better. The content was fine, but overwhelming when it had to be integrated into one assignment.

In the case of Student 2 it appears that the problem was not so much with the education content of the module, but more with how the assignment (assessment) was structured that posed a problem.

The last question (Q5) dealt with perspectives on trans-disciplinarity and integration of disciplines. Table 8.3 shows that three respondents considered the module to be 'integrated' as far as education and health sciences are concerned, but two did not see much integration. Student 5 explained the lack of integration and weak trans-disciplinarity in the following way:

I see the module as only having elements of both fields, which are not really integrated. I am not convinced that the module can represent trans-disciplinarity, since I think that the MPhil programme as a whole should be able to do that before anyone can claim that a specific module is able to do so. Part of the reason I wanted to study health sciences education was to learn how to contribute to the development of building a bridge between general educationalists and health science educationalists.

It seems obvious that in this particular case the student did not see integration of knowledge or trans-disciplinarity as emerging from the module or the programme.

DISCUSSION

The findings from this limited survey in one programme and study unit have shown that tutors' responses varied between observing 'traces' of trans-disciplinarity to a 'hybrid' model (meaning a mix between weak and strong trans-disciplinarity) to 'strong' trans-disciplinarity with exceptions. Tutors were therefore not in agreement on the reigning curriculum model, but what seems common is that content from the discipline of education is seen to provide health educators with 'wider perspectives' provided it is contextualised and relevant to the health education profession. On the issue of curriculum space (framing and classification) there also seems to be difference of opinion among tutors, with an indication of ample opportunities for students to apply educational knowledge in their respective health science contexts. Obviously the diverse opinions or 'confusion' about trans-disciplinarity, framing and classification need to be addressed through more intensified and coordinated curriculum planning and development efforts (Cary 2006; Harvey & Knight 1996). There has to be some kind of consensus among tutors about these issues (Pugsley, Brigley & MacDonald 2008) if the programme and module aim of optimising learning opportunities is to be realised, particularly at the postgraduate level.

From tutor and student feedback at least three conclusions might be drawn. Firstly, there are a few signs of strong trans-disciplinarity as defined by Max-Neef (2005) in both the module and the programme. Most literature sources refer to trans-disciplinarity in terms of research (Nowotny 2006; Pugsley *et al* 2008), but postgraduate curricula are also in the spotlight for their apparent rigidity and disciplinary focuses (Harvey & Knight 1996; Lawrence 2004). Particularly at the master's level of studies in professional

fields such as HSE it is assumed that students should gain a deeper understanding of social research processes and contexts to interrogate educational issues. In line with the findings of this limited survey, literature reports increasing challenges for clinicians who try to complete educational-type studies amidst their full-time professional and teaching commitments (Pugsley *et al* 2008). It is also assumed that if health science educators do not see master's studies and the research projects they conduct as being highly relevant to their educational practices in health sciences, completion rates might be low and the satisfaction gained from these types of studies might be limited. Against this background a purposive drive towards increased trans-disciplinarity and provision of ample curriculum space makes good sense as health care problems are complex and teaching-learning situations are varied and challenging (Dillon 2008).

Secondly, in Bernsteinian terms curriculum space in the module (and the programme for that matter) currently seems to be both weakly and loosely classified and weakly and loosely framed. This is a positive finding and ties in with views on the importance of intersections of epistemology, ontology, theory and research in postgraduate curricula (Dillon 2008; see in particular Barnett & Coate 2005). The knowledge types making up the curriculum, expectations of students, the way curricula are planned and the position of research all seem to play major roles in postgraduate students' perceptions of how well they are allowed to create and utilise space in the curriculum. In this study the findings from students' responses in particular pointed to what Bernstein (1990:48) has termed 'valid forms of knowledge and pedagogy' in the sense that in general, most students perceived the curriculum in question as being relatively open and non-constraining regarding their educational practices in the health sciences. Although there might not be many signs of a well-integrated curriculum (i.e. closely integrated among education, health sciences and higher education in this case), the current disciplinary boundaries are not overtly tight and the fact that the curriculum planners and lecturers are working jointly in a team to point out overlapping concepts, problems and themes proves to be encouraging.

Thirdly, it seems that trans-disciplinarity and opening up curriculum space in HSE are still largely underexplored and underdeveloped. It has been pointed out (Nowotny 2006) that relevant (or mode 2) knowledge types (Gibbons 2005) imply problem-based approaches, heterogeneity in participants and strong integration of knowledge. Unfortunately, as is the case in most universities and programmes, disciplinary structures and hierarchical forms of organisation still largely prevail. In the case of the module in focus and the MPhil (HSE) programme in general, the tutors, who also serve as the curriculum planners, represent different disciplines and different academic units in the institution in question but think in similar ways about the aims and outcomes of the programme. This seems to be a positive development in realising stronger future possibility of trans-disciplinarity.

In conclusion: Key questions about education need to be understood and addressed by way of innovative concepts and methods. This stems from the fact that the capacity

of educators to deal with these questions is insufficient even though many are convinced that formal studies such as master's programmes will provide them with the 'right' answers. However, if these programmes are not decompartmentalised or 'de-disciplinised' and do not increasingly deal with the diverse nature of the social contexts in which people live and teach, the answers will remain superficial and only of academic concern. In order to deal with these limitations, knowledge frameworks and thought need to be revised. Moreover, efforts towards trans-disciplinarity and increased curriculum space could be part of this solution and further inquiry into other cross-faculty postgraduate programmes might contribute to a productive debate.

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9

UNIVERSITY AND WORK

CURRICULUM INQUIRY FROM AN ACTIVITY THEORY PERSPECTIVE

James Garraway

INTRODUCTION

Activity theory is fundamentally a theory of transforming and improving practice, whether in work organisation or in education (Roth 2004:7). Activity theory, particularly that based on Vygotsky's concept of mediated learning, has had an enormous influence on teaching and learning in general.

In activity theory terms, all human endeavour is goal-oriented; however, such endeavours are always beset with contradictions and difficulties, which often reside in complex systems of economic and power relations (Kaptelin & Miettinen 2005:2). The strength of the theory lies in recognising that contradictions are not givens but have historical and cultural roots and as such can be worked with, often providing the engine for change in organisations (Engestrom 1987). Activity theory approaches to analysing work and the curriculum are therefore particularly appropriate, as there is an intersection of two different sets of social practices.

The acquisition of knowledge at university, because of its more conceptual and general nature, can be of the form of learning central propositional knowledge – often in codified form. This may then be used to accrete or make coherent elements of knowledge drawn from the academic discipline or environment. On the other hand, much learning in practice involves learning about what works in a particular situation, which may not lend itself to codification. In addition, much learning is cultural and situated, occurring through participation in communities of practice (Eraut 2004, 2010). These differences between university and work knowledge and practice are likely to create tensions and contradictions in, for example, the design of career-focused curricula.

In terms of curriculum, activity theory has been used extensively in the literature to analyse the effects of information communications technology (ICT) interventions in the classroom (see, for example, Murphy & Rodriguez-Manzanares 2008 for an international perspective and Woods & Marsh 2007 and Hardman 2005 for a South

African perspective). Though research has been conducted on the use of activity theory to analyse the relationship between university and work in the curriculum (see, for example, Konkola, Tuomi-Gröhn, Lambert & Ludvigsen 2007; Pare & Le Maistre 2006; Virkunen, Makinen & Lintula 2010), its use is not extensive and it remains a somewhat novel approach to curriculum and work here and abroad.

Activity theory approaches to learning can be divided into three phases, beginning with Vygotsky and mediated learning as a largely individual process. This first phase is known as ‘first-generation activity theory’ (Engestrom 2001). The second phase, ‘second-generation activity theory’, expands Vygotsky’s concept of mediated learning to include the social relations and structures within which learning occurs into what is known as an activity system (Engestrom 1999). In the third phase, ‘third-generation activity theory’, the unit of study involves more than one activity system and the interactions between them (Engestrom 2001).

First-generation activity theory is related to the well-known curriculum design concept of constructive alignment (Biggs 2003) and explores how this concept itself can be related to work and the curriculum. Drawing on second-generation activity theory, suggestions are made in this chapter on how the system may be used as an analytic and developmental framework for work-integrated curriculum design. The last section reports on empirical research on curriculum and internships conducted from a third-generation activity theory perspective.

FIRST-GENERATION ACTIVITY THEORY IN WORK AND THE CURRICULUM

Vygotsky’s theory of learning describes learning as a movement from an initial less systematic, more localised understanding of a topic to one that is more systematic and abstract (Hedegaard 1998:119). In Vygotsky’s terminology, the student gains a more scientific understanding of the world, and this is the importance and focus of school learning. Furthermore, learning is not just an isolated individual act, but is mediated through cultural tools that could be symbolic (like language) and material (books and classrooms) and in general involves the actions of a more knowledgeable other (Hardman 2008:2). The difference between what students already know and can do unaided and what they can potentially know and do through tutelage and the use of mediating objects is known as the zone of proximal development (ZPD) (Hedegaard 1998:119).

The theory of learning can be represented by a triangle (see Figure 9.1) with mediating tools at the apex of the triangle and the ZPD lying between the subject/student and the object, the more scientific knowing to be worked on/understood.

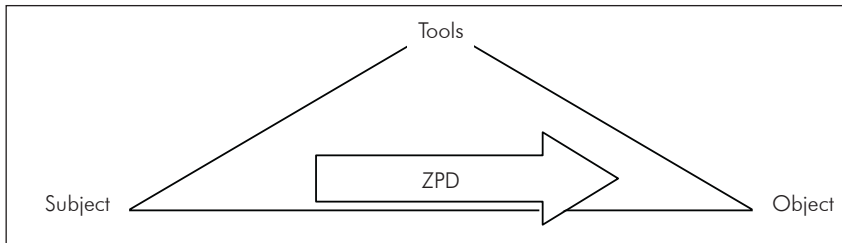


FIGURE 9.1 Vygotsky's theory of learning (first-generation activity theory)

The implications of this theory of learning are that tools will be used differently in different circumstances, and that the way students work on the object will itself result in somewhat different knowledge constructs and outcomes. The Vygotskian framework provided the basis for what later was referred to as 'situated learning' (Pare & Le Maistre 2006) and 'social constructivist theories of learning', in which students actively construct meaning within a teacher-mediated framework towards more complex ways of knowing (Moll 2002:17). The currently widely used curriculum theory in higher education of constructive alignment is derived from social constructivist theories of learning (Biggs 2003).

Constructive alignment in curriculum was developed by Biggs as an antidote to emerging outcomes-based approaches to curriculum in Britain in the early 1980s (Biggs 2003). In these approaches, the important issue was that teaching, assessment and outcomes in the curriculum should be aligned such that it was very clear what students were supposed to know and how they were supposed to know it. For Biggs, the problem with this model was two-fold. Firstly, the type of outcomes being aimed for mattered, in particular in higher education. These, he reasoned, would need to be conceptual and systematically structured understandings of topics, as described in his well-known structure of observed learning outcomes. Secondly, reaching these outcomes would involve students in deep engagement with the topic and thus the construction of meaning. The role of the lecturer/tutor was then to move students from a relatively unstructured initial understanding towards a more conceptual understanding within a ZPD. Neither of these issues was overtly factored into an outcomes-based approach (Biggs 2003; Moll 2011). The similarities of Biggs' theorisations with Vygotsky's learning theory, in terms of scientific understanding and meditation through a more knowledgeable other, can be clearly seen.

Biggs was not just concerned with students knowing concepts, but also with their ability to use knowledge, which may also involve integration across different subjects (Biggs 2003). In addition, Biggs refers to problem-based learning (PBL) as an ideal illustration of a constructively aligned curriculum in that it involves deep understanding and application of knowledge to context through mediated learning. PBL can itself be a form of integrating work-like practices with the more theoretical curriculum (Charlin & Mann 1998). Though constructive alignment is focused on the in-house

university curriculum, it has also been suggested as a useful tool in the design of work-based learning curricula in internships, in which the issue of functioning knowledge is paramount (Walsh 2007).

Constructive alignment is still a dominant framework for curriculum design in higher education today, but has attracted some criticism. The first criticism concerns Biggs's (2003) focus on outcomes and his rather unfortunate statement that students will be trapped in a beneficial and challenging triad of teaching, assessment and outcomes. For some critics (for example, Jervis & Jervis 2005) this points to a strongly behaviourist pedagogic orientation that is at odds with constructivist ways of thinking in which students essentially make their own meaning, albeit within some form of set parameters. A second criticism more closely related to developments in activity theory is that constructive alignment is too limited in its focus on learning within a university course and does not take into account broader societal issues that may impact on the curriculum (see, for example, Boud 2007).

SECOND-GENERATION ACTIVITY THEORY IN WORK AND THE CURRICULUM

The simple triangle illustrating Vygotsky's theory of learning can be described as the first generation of activity theory, as it forms the basis for later developments (Engestrom 2001). The first development from Vygotsky's initial theory of culturally mediated, goal-oriented actions was to encompass different levels of complexity of action, broadly defined as individual and group goal-directed actions and larger-scale, more collective object-directed activities (Engestrom 2001:134). The difference between action and activity is that in the latter there is a division of labour with different groupings performing actions that together contribute to the overall activity (Engestrom 2008:203). The metaphor of the tribal hunt was used by Leontiev (1974) to illustrate the division of labour in activity versus action. The hunt is usually divided into two actions; those who beat the bush to chase the game away in a particular direction and those who wait to kill the fleeing animals. There is thus a division of labour that, when combined, constitutes the whole activity of hunting.

Further developments towards the development of second-generation activity theory involved an even greater integration of individual actions within a larger, more collective framework. In second-generation activity theory the focus is on the whole activity system or organisation. The individual subject still acts on the object and potentially changes it through the use of tools, but context is now writ large. Context in the form of a broader community with its rules and rituals and division of labour also serves to mediate and thus affect how the subject works on the object (Engestrom 1999). This second generation of activity theory (Engestrom 2001) can be conceptualised as shown in the expanded triangle in Figure 9.2.

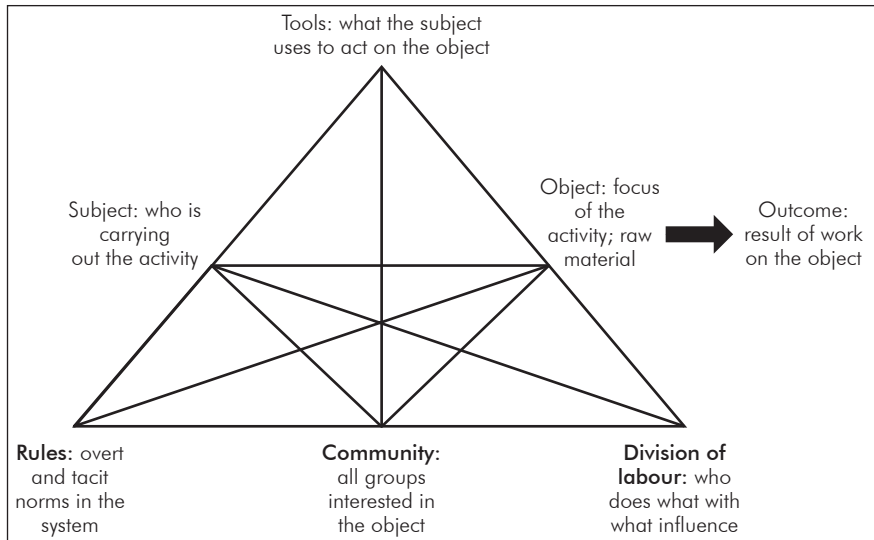


FIGURE 9.2 Activity system triangle (second-generation activity theory, based on Engeström 1987)

The activity system as a whole is the object-oriented, collective and mediated activity. Though it may appear to be a static system, it is dynamic in that all elements of the system can interact with one another (Roth 2004), as is indicated by the lines between the elements of the system, but certain interactions may be prioritised. The object refers to what is of interest, what is being worked on or what provides the focal point for the whole activity system. The object is a particularly tricky concept to work with, firstly because it does not refer to object as in 'objective', but to the material object or 'problem space' that occupies the attention of the subject and community. Secondly, the object may be difficult to pin down; for example, what exactly do we mean by 'health care' in medical facilities (Engeström 2008) or indeed 'curriculum'? The objects themselves may require definition and different actors may define them differently.

In being worked on by the subject in interaction with other elements of the system, the object may be transformed into an outcome. The subject denotes who is primarily responsible for carrying out the activity and from whose perspective the system and the object of the system are being analysed (Murphy & Rodriguez-Manzanares 2008:44; Roth 2004:2).

The community refers to actors other than those in the subject who have an interest in working on the object to produce some form of desirable outcome (Mwanza & Engeström 2003). The community typically interacts with and has influence (constraining or supporting) over the subject through rules. These can encompass overt and codified rules concerning knowledge and behaviours within a system or organisation, as well as more tacit habitual practices. Rules mediate the interaction of the community with the subject(s). The division of labour, who does what in the system/organisation and what

particular influences they exert on one another, typically mediate between the community and the object (Engestrom 1999:31; Murphy & Rodriguez-Manzanares 2008:443).

Activity theory, as an approach to researching complex systems, can be used at different levels of analysis. The first level is one of analysing the system as a whole and thus gaining a sense of the nature of the different elements that make up the system. So, for example, one could do a detailed analysis of the rules operating within a system. On its own, this is a useful analytical exercise to carry out in any system. Other levels of analysis are concerned with where the contradictions in the activity system are sought and examined. Primary-level contradictions refer to contradictions within one element of the six elements of the activity system. Secondary-level contradictions occur between different elements of the activity system, for example between tools and division of labour. Tertiary- and quaternary-level contradictions refer to contradictions between the objects of current and more advanced or improved systems and between all the elements of two such systems (Engestrom 1987:34; Roth 2004:6).

ANALYSING VOCATIONAL CURRICULA USING SECOND-GENERATION ACTIVITY THEORY

At my university, lecturers are currently investigating the use of activity theory to better understand factors that impact on the design and implementation of the work-oriented or career-focused curriculum. We have started using the basic Engestrom-inspired second-generation activity theory and associated system. At present, the theory is being used as an analytical tool to describe the content of all the components and is still in its early stages of development. More empirical data need to be gathered using, for example, the questionnaire/checklist in Table 9.1 with a group of teaching and research staff. Even with the early manifestation of the system shown below, some primary and secondary contradictions are evident, and are briefly discussed in the following section on 'contradictions'. These and other contradictions have to be further explored once more empirical data have been gathered.

It must thus be pointed out that the contents of some elements of the activity system described here are peculiar to the career-focused curriculum project, and may not be found in Engestrom's original activity theory description.

Object: The career-focused curriculum is the problem space we are working with. This can be seen as consisting of subject knowledge integrated with elements of work knowledge, the various teaching and assessment methods related to these types of knowledge, as well as the outcomes we are attempting to achieve. In a typology of the career-focused curriculum, Engel-Hills, Garraway, Jacobs, Volbrecht and Winberg (2009) described different levels of curriculum, including courses and practical work oriented to career needs, problem- and project-based methods, and teaching and learning occurring during work placements. However, just what object we are dealing may differ in different universities.

Subjects: These include those lecturers tasked with the design and implementation of the curriculum. The experiences, skills and dispositions of the lecturers and their understanding of what is entailed in career-focused education are important factors here.

Tools or mediating artefacts: The tools lecturers could use to work on and develop the curriculum include more symbolic aspects such as theories of work and university integration, for example theories of transfer from university to work (Tuomi-Gröhn, Engestrom & Young 2003) or theories of different knowledge types in workplaces and in university courses (Bernstein 2000) and how the two may be integrated or recontextualised (Barnett 2006). More material aspects could include knowledge bases of courses and curriculum-mapping tools, as well as more general issues such as the availability of classroom and laboratory space.

Outcome: The outcome refers to the transformation of the object (courses and work knowledge and practices) through the actions of the subjects, using tools and the influences of the whole community. There would usually be a desirable outcome, for example a graduate with scientific knowledge related to work or one who is able to do work (Konkola *et al* 2007).

Community: The community of actors who also have an interest in developing the object of the career-focused curriculum include internal partners such as quality and planning practitioners, senior management and students, who are the eventual recipients of the curriculum. Included here would be academic developers, though these actors could also be seen as mediating artefacts in relating the subjects to the object. External partners with a common interest in the object include work advisory committees and individual work training professionals (for example work supervisors and clinical educators), professional bodies and national bodies such as the Council on Higher Education and the Department of Higher Education and Training.

The relationship of the community to the rest of the activity system is realised or mediated via rules and division of labour. In organisations, rules traditionally refer to overt rules and regulations and more tacit cultural norms, while division of labour refer to an often overt distribution as to who does what in a workplace, and what the power relations are between these different functions. Daniels (2005) draws on Bernstein's (2000) distinction between a structural and interactional focus in the curriculum. In general, the structural focus refers to the strength of boundaries and hence clear delineation, specialisation and 'classification' of one type of knowledge from another (Daniels 2005). The interactional focus, on the other hand, centres on the relative positions of control over the sequencing of the curriculum and who can say what in the pedagogical relationship between teachers and students (an aspect of framing, discussed further over the page under 'rules').

Division of labour: In division of labour, different courses can be separated from one another with different degrees of strength of boundary. This often relates to the

different degree of role specialisation of different lecturers. These parallel divisions would be likely to affect how well courses can be integrated in, for example, PBL tasks. The separation of different courses may also have a vertical dimension in that some courses may be given a greater weighting in the development of the career-focused curriculum than others.

There may be divisions between lecturers as to who teaches and who does research and what sort of research is done (hard science versus curriculum research, for instance).

In the career-focused curriculum there is also likely to be a division between practical laboratory courses, learning sessions in workplaces and the more procedural and conceptual knowledge taught in the classroom. Clearly, the relationships of parallelism and verticality and between practice and conceptual/procedural elements of courses will influence how the curriculum is to be structured.

Divisions may also refer to the relative influences that different members of the community have over the curriculum, as well as to power differences and different roles adopted between students who learn and lecturers who teach. However, in keeping with Daniels's (2005) approach, these are represented in the rules element of the activity system.

Rules: In pedagogy, rules can include those concerned with how the curriculum is structured and what counts as evidence of learning. There is also, as Daniels (2005) elucidates, the extent to which students can influence what can be said in the subjects and curriculum which, following Daniels's (2005) interpretation of Bernstein in activity theory, can be referred to as 'framing'.

The rules relevant to curriculum, however, go beyond what occurs in the classroom and must include other rules imposed on the work-integrated curriculum by the community. These would include rules of combination and credit rating, rules of assessment according to policies and rules related to the strategic objectives of the university. Professional bodies would also exert specific rules as to weightings of different forms of subject knowledge; for example the Engineering Council of South Africa requires a professional degree to have a minimum engineering science weighting of approximately 30% and an engineering design and synthesis weighting of 12% (ECSA 2009).

Curriculum researchers Mwanza and Engestrom (2003) have adapted the activity system components into a research interview questionnaire. In their research they were interested in harnessing advanced ITC (e.g. virtual reality, mobile technologies) as a source of innovative pedagogic practices in the college engineering curriculum. In order to do this it was first necessary to understand the nature of the whole teaching and learning activity, and how the different parts related to one another. They utilised a data-capture methodology in empirical research on different engineering classrooms called the 'eight-step model' to better understand the activity. Likewise, Hardman (2008) developed a checklist for the activity theory curriculum researcher to ensure that all elements of the activity system are noted (Hardman 2008). A similar process

can be used for inquiring into the curriculum and work, by combining elements of the eight-step model and the Hardman checklist into an adapted form of questionnaire/checklist, as outlined below in Table 9.1.

TABLE 9.1 Questionnaire/checklist for activity theory curriculum inquiry

Component of the activity system	Research questions to pose in analysing the curriculum and work
Object	<ul style="list-style-type: none"> ▪ What is understood by the career-focused curriculum as opposed to a more traditional curriculum?
Subject	<ul style="list-style-type: none"> ▪ What are the experiences and dispositions of lecturers towards the career-focused curriculum?
Outcome	<ul style="list-style-type: none"> ▪ What would be a desirable outcome for a career-focused curriculum?
Tools	<ul style="list-style-type: none"> ▪ What types of symbolic and material tools do the lecturers have at their disposal to work on the curriculum?
Community	<ul style="list-style-type: none"> ▪ Who are the internal actors and groups who share an interest in developing the career-focused curriculum? ▪ Who are the external professional bodies and other committees and individuals who share a common interest in developing this object?
Rules	<ul style="list-style-type: none"> ▪ What rules are imposed by internal and external groups on how the curriculum should be structured and enacted? ▪ What counts as evidence of learning? ▪ What level of interpretation by the students is permitted?
Division of labour	<ul style="list-style-type: none"> ▪ What is the nature of horizontal and vertical subject distinctions and the relative weighting given to theory and practice?

The questionnaire/checklist has only recently been used within the context of investigating the elements of the vocational or career-focused curriculum, and has not as yet been properly trialled and reported on.

CONTRADICTIONS AND DEVELOPMENTAL LEARNING IN SECOND-GENERATION ACTIVITY THEORY

The use of the activity theory as an analytic tool to describe a system (in this case that of the career-focused curriculum) can be further developed to pinpoint areas for further research. A common thrust in activity theory analyses is that there are always contradictions and difficulties that have arisen over time; there are always many different voices that have become embedded in the rules, division of labour, object and tools (Engestrom 2008:27; Engestrom & Miettinen 1999). These inherent contradictions provide the starting point for developmental learning in the system. In Engestrom's analysis of activity systems and learning, predominately in workplaces, all these historically developed contradictions have their origins in and are influenced by the fundamental contradiction of use and exchange value in capitalist activity (Engestrom 2008:205). However, as Blackler (1993) argues, writing from the work organisation perspective, the use of activity theory to analyse and identify inherent contradictions in activity systems can be performed without recourse to Marxist economic theory.

In the tools element of the activity system for the career-focused curriculum, designers may come from different theoretical perspectives that may be somewhat contradictory (primary-level contradictions). For example, a situated cognition approach to bringing the curriculum closer to work (Lave & Wenger 1991) may be viewed as ignoring a more social realist view of university and work knowledge as being substantially different and differently acquired (Guile & Young 2003:66). The surfacing of these differences may in turn lead to productive developments; the Daniels (2005) integration of Bernsteinian concepts of classification and framing with the more contextual approaches taken in activity theory, discussed earlier, is exactly such an example of productive development.

In the career-focused curriculum, a common contradiction may arise concerning objects and tools (secondary-level contradiction). For some lecturers the object of the curriculum may be primarily the knowledge and methods of the courses taught. For others, often also including work representatives, the object is functioning in workplaces and courses are tools to achieve this; there is an object-tool reversal in the activity system (Virkkunen *et al* 2010).

Or, within the rules and within the division of labour, students may be understood differently as passive recipients or as active learners (Murphy & Rodriguez-Manzanares 2008).

Contradictions between elements can be clearly seen in, for example, Hardman's (2005) analysis of the introduction of ICTs into the university classroom. Here, the tool of the ICT was at odds with the more didactic role of the lecturer, as students could to some extent work independently and pace their own work. There was tension between the tools and role (division of labour) of the lecturer and to some extent between the rules and the tools, as using ICTs may open space for increased student voice, perhaps in contradiction to that of the lecturer. Subsequent surfacing and examination of this tension introduced a process of change in the teaching and learning activity (Hardman 2005:390).

Contradictions between elements can also be traced to the activity system for the career-focused curriculum described earlier. For example, where the dominant culture of teaching (rules) is that students learn in a structured way through attending lectures, then implementing more student-controlled and student-centred learning (for example PBL) may be resisted by staff. PBL and project-based learning as examples of the object in a career-focused curriculum activity system are also likely to be hampered where the horizontal division of labour is one of strong classification between subjects. Through focusing on these tensions, much as was done by Hardman (2005), shifts and developments in the object and the activity system as a whole may occur.

Working through these sorts of contradictions and reorganising the activity system is a potentially long process involving interaction and reflection among participants. A method to work through contradictions is that of the 'change laboratory' described by Engeström (2007). Here the activity theory analysis and the contradictions exposed through using it form a primary stimulus for change in the activity, which is worked

through using the experiences of practitioners and materials drawn from members of the community. Furthermore, sessions are filmed and elements of the films from one session are used as a stimulus for discussion in the next.

As more and more contradictions and difficulties emerge with current practice, participants, often with the further stimulus of the facilitator, may be able to break out of their 'iron cage' mentality (Engestrom 2007:382) and develop new objects for the activity. The new object is likely to be contradictory to the dominant practices embedded in the organisation (a tertiary- or even quaternary-level contradiction).

The method has been used in the development of a new Physiotherapy curriculum in Finland (Virkkunen *et al* 2010). Data were gathered from students and from practicing physiotherapists. The main contradictory issue that arose was that students were encouraged in the curriculum to focus on knowledge and techniques, but were not seeing categories of whole patients and the sorts of adaptations needed to treat such categories; for example, the category of older patients with all their associated health and lifestyle problems.

The research of Virkkunen *et al* (2010) in fact moved from the analysis of a single activity system to that of different, interacting systems. This is both another level of analysis, as contradictions between activity systems are examined, and another development in activity theory, referred to as 'third-generation activity theory' (Engestrom 2001).

THIRD-GENERATION ACTIVITY THEORY IN WORK AND THE CURRICULUM

Previously, in second-generation activity theory, work and learning were combined with the common object of the career-focused curriculum. Another way to analyse work and learning in the career-focused curriculum is to pull the system apart into two interacting systems that represent different voices, different perspectives from actors as well as different contexts; contradictions now arise between any or all elements of the two different systems.

Analyses involving such different activity systems fall under the concept of third-generation activity theory (Engestrom 2001:135). Work and the curriculum have been analysed in this way by McMillan (2009) in the context of the mainstream medical curriculum and service work in the community in South Africa, and by Konkola *et al* (2007) in the context of Physiotherapy internships in Finland and in Education and Social Work in Canada (Le Maistre & Pare 2004).

At the first level of analysis, the two activity systems can be shown to have quite different tools, objects, communities, division of labour and rules (Le Maistre & Pare 2004). However, the student as the subject in both systems, albeit with different roles, provides connectivity and the possibility for interaction between the two different activity systems.

Figure 9.3 below is a schema of two interacting activity systems of the university and work. When students are at work during their internships, they are required to deal with

work problems that are fundamentally different to the kinds of problems experienced in the university curriculum (Pare & Le Maistre 2006). The students have to refocus knowledge and methods learnt at the university, the object of university study, to the work problem, which constitutes the object of the work activity. In so doing, they transform both the object of study and the work problem into a mutually developed object (Konkola *et al* 2007).

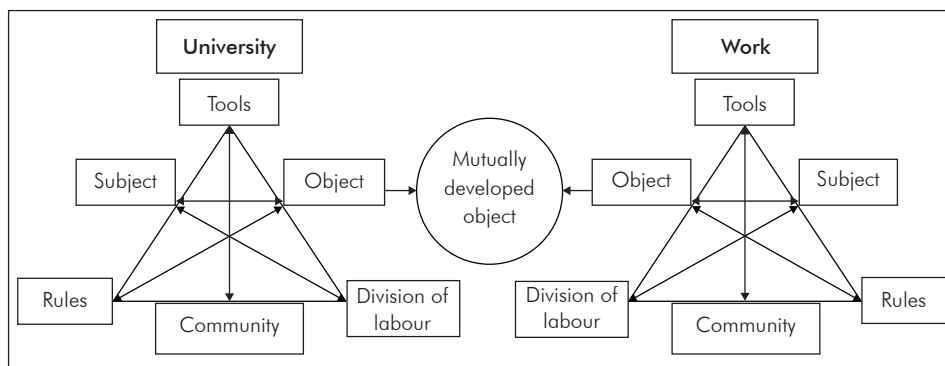


FIGURE 9.3 Engeström's (2001) depiction of third-generation activity theory

Because we are dealing with different systems and often different objects, additional concepts such as boundary crossing and brokers from situated learning theory (Wenger 1998) and boundary objects from actor-network theory (Star & Griesemer 1989) need to be introduced (Engeström 2001:135).

Our own curriculum research focused on industrial internships for final-year Chemistry students (Garraway, Volbrecht, Wicht & Ximba 2011). Altogether 18 students doing their internships in nine different chemical industrial sites, ranging from industrial chemical to health product manufacturing and water purification, formed the focus of the study.

Our investigation involved the introduction of a task at work that would serve to connect the taught and practical curriculum at the university with work knowledge and practices. But more than this, the task needed to be of interest to and useful for both the workplace and the student. In this way the task could act as a boundary object (Star & Griesemer 1989), connecting work and university but also acting as a developmental node (Engeström 2001; Konkola *et al* 2007).

The research thus involved using activity theory as an intervention in order to improve practice (Roth 2004:7), as was described in the introduction. But it also provided a framework with which the researchers could analyse the curriculum as it is enacted in internships, in particular the relationship between university knowledge and work knowledge and practice.

Although we were all curriculum researchers, half our number was also Chemistry lecturers with responsibility for monitoring the students during their internships.

Students are required by the university to do an investigation of an issue at work and to submit the investigation as evidence of having 'applied' their university knowledge. Through interviews with work supervisors, the researchers were able to ensure that the investigation was something that really mattered at work and was substantial enough to stimulate the students to transfer knowledge from the university to the work context. In interviews with the students, their Chemistry lecturers encouraged them to think back to their university curriculum and select elements that were relevant to the industrial task. The university staff were thus acting as knowledge brokers (Wenger 1998) within the triangular relationship of work supervisors, the students and themselves as representatives of university knowledge (Konkola *et al* 2007).

In reporting on the investigation, the students were requested to reflect on what knowledge they had selected and transferred, what the gaps were between university and work knowledge and how they managed to bridge these gaps. This was submitted to the researchers in the form of a written, reflective report. The reflective report provided the main source of data for the researchers. In addition, the students were interviewed at work before they wrote the report and were asked to reflect on how the investigative project at work related to their learning at university; these were recorded and transcribed and provided additional data on how the students connected university and work knowledge and learning.

In writing about bridging the gap, the students were asked to reflect not only on what new knowledge was learnt, but also on how this knowledge was acquired in the workplace. Here, the researchers were attempting to tap into the context in which learning occurred at work, and the extent to which the students were becoming conscious of their engagement in a new and different community of practice (Wenger 1998).

In terms of gaps and knowledge development, as evidenced in the interviews and the written reflective reports, we found that the students' abilities differed. Some students could recognise the gap, but not how they might integrate and develop what they had learnt at university in terms of the new situation. For others there was not much of a gap at all, whereas for some students' extensive knowledge development was recorded.

The following example of reflection on connecting learning and knowledge between university and work is taken from a written reflective report submitted by an internship student working at a waste-water treatment plant. The context of the investigation was that the treatment plant staff had acquired a new mercury analysis instrument, but had experienced problems setting it up that remained unresolved. The task set for the student was to solve this problem and set up the instrument. The student was familiar with the general practice and procedures of chemical analysis of water, but not that involving mercury. In his reflective report he described how he had mobilised his knowledge of the chemistry of mercury learnt at university, combining it with general

practice, in order to solve the work problem and set up the instrument, thus developing his own knowledge and skills and contributing a new practice to the workplace.

In activity theory terms the mutually developed task acted as a boundary object (Engestrom 2001:136; Konkola *et al* 2007) because it was able to articulate the two worlds of the university and work. In so doing, it satisfied both the work problem and academic learning needs. Furthermore, through using the boundary object as a focus for development, both the student and the activity system as a whole were developed.

Within the written reflective report on his investigation, the student was also able to describe the approach he took to solving the problem. He described how he first followed the general procedure that all company employees follow of constructing a stage-by-stage flow chart of the process to help identify what the problem was and where it occurred. This he derived from his supervisor. Then he discussed the chart with other staff in the laboratory until the problem and possible solution became clearer. There are clear parallels here with the Vygotskian notion of the ZPD, where students are able to do more with the mediation of more experienced others than they can do unaided on their own. This way of practicing is different from typical university work, and involves both interaction and learning from supervisors and from other differently skilled individuals – what Pare and Le Maistre (2006:373) refer to as “distributed mentoring”. Developmental learning is thus not only about knowledge, but also involves engagement with the ways of doing in the workplace.

The empirical study illustrates how third-generation activity theory can be used as both a design tool for developmental learning and an analytical tool to understand learning and curriculum during internships.

SUMMING UP ACTIVITY THEORY IN UNIVERSITY AND WORK CURRICULUM RESEARCH

Table 9.2 sums up and illustrates the different ways in which activity theory has been used in curriculum research in higher education, as described in this chapter. It reiterates the different phases or generations of activity theory in research. Furthermore, it shows how second-generation activity theory may be used descriptively or to expose different levels of contradiction.

TABLE 9.2 Activity theory and curriculum research

Generation	Curriculum research and development focus	Examples of curriculum research
First-generation activity theory (Vygotsky)	Constructive alignment	Higher education curriculum design and analysis (Biggs 2003)
Second-generation activity theory (Engestrom)	Analytical framework for identifying components of an activity and the relative influences of the components on the activity as a whole	Analysis of the vocational curriculum and the role of ICT in engineering colleges (Mwanza & Engestrom 2003)
	Identification and exploration of contradictions within elements of the curriculum (primary-level contradictions)	Analysing the components of the vocational curriculum in universities (this chapter)
	Identification and exploration of contradictions between elements of the curriculum (secondary-level contradictions)	Introducing information technology into the university classroom (Hardman 2005)
	Exploration of new ways of working and the formation of new objects and activity that may be contradictory to previous objects (tertiary-level contradictions)	In change laboratories (Engestrom 2007)
Third-generation activity theory (Engestrom)	Comparing different activity systems and exposing contradictions as developmental nodes	In vocational university education and the workplace (Virkkunen <i>et al</i> 2010)
	Analysis and development of mutually formed objects between different activity systems involving issues of boundary and boundary crossing	In Chemistry internships (in this chapter) and in Physiotherapy internships where new practices emerge (Konkola <i>et al</i> 2007)

CONCLUSIONS

In traditional university curriculum practices, knowledge is typically developed from more simple to more complex forms and is organised conceptually via central guiding theories; this is what Bernstein referred to as vertical discourse (Bernstein 2000). In examining work and the curriculum, there will always be elements of vertical knowledge development. But there also needs to be cognisance of horizontal developments that involve movement between parallel activity contexts (work and university). These parallel contexts, or activity systems, entail some complementary but also “conflicting cognitive tools, rules and patterns of social action” (Tuomi-Gröhn *et al* 2003:3).

The limitations of first-generation activity and constructive alignment were that insufficient attention was paid to context and the dynamic nature of curriculum. Second- and third-generation theory with their focus on variation, multi-voicedness and constant opportunities for change (Engestrom 1999:20) within and between activity systems provide for a richer, less static framework for analysing work and the curriculum.

Activity theory with its focus on differences and contradictions within and between elements of an activity system in second-generation activity theory and between different activity systems in third-generation activity theory is thus an ideal tool for examining work and the curriculum.

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10

ACADEMIC LITERACY AS A GRADUATE ATTRIBUTE

IMPLICATIONS FOR THINKING
ABOUT 'CURRICULUM'

Brenda Leibowitz

INTRODUCTION

This chapter is set within the current focus on graduate attributes. These are qualities which students require in order to study at university, as well as and more typically, the attributes that students require in order to graduate as competent and meaningfully engaged members of society. The particular subset of attributes on which the chapter focuses covers approaches towards academic literacy, broadly understood as encompassing writing and reading, digital literacy and information literacy. I locate my understanding of academic literacy within what is broadly referred to as a 'situated literacies' approach and trace the implications of this approach for curriculum design and for research into the curriculum. In order to substantiate many of the claims in this chapter, I provide examples from various studies conducted while being involved in research and development work on language across the curriculum at the University of the Western Cape (UWC), and from research into language, biography and identity I have conducted while working at Stellenbosch University. I draw from the international literature, as well as from South African literature, which has its own trajectory and concern to respond to the educational, racial and linguistically saturated divisions and inequities of our past. This chapter makes a strong argument for an understanding of graduate attributes in general – and of academic literacy in particular – as practices deeply embedded in the disciplines. For pragmatic reasons, it might be necessary to provide for stand-alone approaches towards the facilitation of academic literacy amongst students. With regard to the broader concept of graduate attributes, I ask whether the kinds of attributes we expect from students, such as criticality or lifelong learning, should not be the subject of attention for educators themselves.

THE SIGNIFICANCE OF ACADEMIC LITERACY IN THE CURRICULUM

Much current curriculum design is taken up with considerations of the qualities and dispositions with which we expect the curriculum to equip students as graduates, rather than, or in addition to, the specific content knowledge a student should acquire. The last

two decades have seen a focus in formal curriculum planning within higher education on the final outcome of education, known as ‘graduate attributes’ (in Australia, cf. Barrie 2004), or as ‘graduateness’ (in the UK, cf. Yorke 2009). With reference to Australia, Barrie (2004) maintains that these attributes refer to the generic values, attitudes or skills that students should acquire in order to become employable and to be able to contribute to the welfare of society. The South African equivalent of this is the Critical Cross-Field and Developmental Outcomes (SAQA 1997) which emphasise the qualities an individual requires in order to learn and to live successfully in a diverse and complex world. In this chapter I make use of the graduate attributes theme as I believe this is a useful way to focus our minds on key goals of higher education. In so doing, I am mindful of the various criticisms of the concept, for example that the language of attributes and outcomes fails to capture the complexity and richness of the teaching and learning experience (Clegg & Ashworth 2004). Furthermore, it is said to de-emphasise the degree to which the attributes are learnt through the disciplines (Jones 2009), and according to Campbell (2010) it underplays the extent to which the attributes are engendered by particular contexts such as the home and family, rather than by educational institutions.

The broad cluster of language, communication and academic literacy tends to feature prominently within the various lists of graduate outcomes. Communication and literacy are evident in two of the seven SAQA Critical Cross-field Outcomes: learners should be able to “collect, analyse, organize and critically evaluate information” and “communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentations” (SAQA 1997:1). They are also embedded within the goals for higher education in the Education White Paper 3 (RSA DoE 1997:14):

To produce graduates with the skills and competencies that build the foundations for lifelong learning, including, critical, analytical, problem-solving and communication skills, as well as the ability to deal with change and diversity, in particular, the tolerance of different views and ideas.

While language and literacy are outcomes of higher education, they are also foundational, in the sense that they are required for successful learning. Given the significance of this cluster of attributes, it would be fair to assume that attention to them would occupy a central place in the design of a learning programme. It is unfortunately the case that they tend to be deemed the expertise of ‘outsiders’ to the discipline or department. They get relegated to Cinderella first-year courses and siphoned off for specific groups of what in South African policy discourse are called ‘educationally disadvantaged’ students. Why this is the case, and what to do about it, is given consideration in this chapter.

IS THERE A PROBLEM?

In addition to being embedded in the graduate outcomes policy discourse, language and literacy receive attention because of the sense of alarm associated with this domain. There is a belief that students cannot write or express themselves correctly, and that they write formal texts in ‘sms-speak’. But I agree with Ivanič *et al* (2009:14) that this is a “crisis narrative”, and that this sense of crisis is overstated. I further agree with Ivanič *et al* that on the contrary, there has been a “proliferation” of literacies, and that these are actually resources for learning. While the sense of crisis may be overstated, there are nevertheless problems that require attention and resolution. One problem is that academics are not sufficiently familiar with the literacies practised in social media and at schools, both their limitations and potential, in order to build upon what students know and do not know and can and cannot do, in order to realise their potential in the academy (Greenhow, Robelia & Hughes 2009). For that matter, academics are also not always as familiar as they could be with the literacies deployed in various professional and social domains. But a far more serious problem remains the degree to which access to the dominant literacies is dependent on social class and privilege. This unequal access further influences access to academic literacy and further opportunities to learn at university, as noted with reference to literacy by Street (1995), to modes by Bernstein (1996) or with reference to discourse by Bourdieu, Passeron and De Saint Martin (1994) and Gee (1992). The extent to which this is a problem in higher education in South Africa is reflected in the national retention and success rates, which in this country fall below international norms and are highly influenced by social inequality (Scott, Yeld & Hendry 2007). So yes, there is a very real problem, one of inequality and lack of valuing of vernacular discourses or primary discourses of students. Forward-looking curriculum design can meliorate this.

‘ACADEMIC LITERACY’ – TOWARDS A DEFINITION

In order to situate this chapter within the theoretical domain, I use the phrase ‘academic literacy’ which I use interchangeably with ‘literacy’ and ‘discourse’, two concepts used in the literature to which I am referring. A simple definition of academic literacy is provided by Ivanič *et al* (2009:49) as being “the particular ways of reading and writing which help students in their learning”. The phrase intersects with “academic discourse”, which I defined (Leibowitz 2010:2) as “a culturally specific set of linguistic and discourse conventions, influenced by written forms utilised primarily in academic institutions such as the university”. It thus pertains to students as well as to academics. The word ‘discourse’ suggests more culturally laden, ideological, values or identity perspectives as is clear from the work on discourse by Gee (1992) or Bourdieu, Passeron and de Saint Martin, whose work was published in 1965 and translated from the French in 1994. Their book consists of the first substantial piece of research I am aware of, to use this term in relation to academia.

Ivanič *et al* (2009) used the plural, “academic literacies”, to suggest that there is more than one kind of literacy, appropriate for more than one context and purpose. When described by Halliday (1994), ‘literacy’ pertains strongly to the written mode. He says that if we do not limit the word ‘literacy’ to written forms, then we will have to coin another term to describe reading and writing. But we learnt from Kress (1997) how multimodal communication has become, and increasingly so. Mehlenbacher (2010), citing Warschauer (2002), distinguishes between four forms of literacy in education: computer, domain (relating to content and the disciplines), textual and visual literacy. In the annual report on IT trends, Educause (2011:3) writes that “Digital media literacy continues its rise in importance as a key skill in every discipline and profession”. I would add to Mehlenbacher’s list, information literacy and numeric literacy.

While these ‘literacies’ are listed by some as being separate, I would argue that they are integrated within the concept of academic literacy. Thus academic literacy is the acquisition of systems of signifying, symbols, text or spoken discourse, which support successful learning and knowledge construction in a culturally specific way in higher education. It tends to be seen as foundational, and pertaining to the beginning of a student’s career. In his seminal 2004 article, Barrie provides an account of how academics at his institution targeted graduate attributes within four categories. The first of these was the focus on “undifferentiated foundation skills (like English language proficiency or basic numeracy)” (Barrie 2004:265), which he maintains the academics saw as precursors to disciplinary learning. There is, however, an increasing tendency to focus on academic literacy within later years and postgraduate studies, presumably with the understanding that at each stage of a student’s career he or she makes transitions, not only in the first year. This was a conclusion I reached in the study on students’ transitions that I conducted at UWC. Of the 20 students I interviewed, many found their transition to first year dramatic. One student said that “it was a very traumatic and harrowing experience”. But many also found the transition most awkward the first time they had to do a research assignment, at honours level or when changing to a new university:

I was very frustrated [at the new university] and said to myself, ‘Well, I’ve been four years at [the first university] but never, I have never had someone who marked my paper like this’ and to start all over again, it’s very difficult’ (Leibowitz 2010:96).

Two of the most significant concepts associated with a definition of academic literacy from a socially situated approach are those of context and function, which influence the look and shape of texts, both oral and written. This is fully elaborated in the work of Halliday on register (1985), and developed in work on literacy by writers such as Gee (1992), Barton (1994) and Street (1995). The focus on function and, in particular, on motivation, is most extensively dealt with by Clark and Ivanič (1997). Context and function influence what practices individuals engage in and the forms they acquire, as well as at a more attitudinal level, their motivation to acquire academic literacy and their sense of identification with it when at university.

The influence of context and function on the forms a person learns to use, and thus the shapes of the texts one creates, is provided by the account of an Afrikaans-speaking female student who regularly visited the library when she was in high school, and read copious quantities of novels in English, for the pleasure of engaging with stories. But she did not read non-fiction and she did not engage in debates about what she read. When she arrived at university she found that her writing had been influenced by the kind of reading she engaged in at school, at the expense of more discursive or analytic writing:

From prior life, what interested me is writing, it is writing stories, everything in a way it is like a story, like when I write my essays I would start in the beginning that now at school and when I read books I would read, I would read books 'in the beginning' or 'from this day on'. Now I would write an essay like that, like in the beginning, but not like use words, but I would start with that and I think that was a big influence that I write like a story because I wanted to do journalism and I mostly focus on writing a good story and not [...], sometimes focusing on what I must write (Leibowitz 2010:120).

The comment below, by a professor in the arts faculty at my university, is an example of how the acquisition of certain “ways with words” (cf. Heath 1983), in one context, enables an individual to sue that same language or register in other contexts in which similar functions are being exercised. Riana participated in many debates around the dinner table which required her to analyse and defend her position. This led her to develop ways of talking or writing that stood her in good stead in her later academic life when she had to perform similar functions:

Through the way in which we were brought up I did get a lot of ... a lot of academic debate ... you have to articulate your argument clearly ... if things are different then you have to show that they're different and not start muddling things ... and that part of being education [is typical] in this department (Leibowitz 2009:269).

Riana was using language in her home for a purpose – arguing with her father, scoring points, marshalling information in support of her argument that had a similar function to the purpose for which she would use language in the academy. At the level of attitude, the purpose with which we imbue reading and writing or learning to read and write will inform how we understand learning to use academic literacy. A rather more negative example in this case is from a study I conducted with 36 students studying linguistics at UWC. There were students in the group who were struggling to pass their first year, and who were extremely motivated to do so. However, their understanding of the purpose of academic learning was so instrumental as to be completely at odds with the purpose more traditionally associated with learning: to become more educated, to be able to make informed choices, and so on. While an instrumental or extrinsic motivation for learning in higher education might be implicit in the minds of most undergraduate students, for those who have not experienced the joy of learning for other reasons this instrumental reason becomes salient. Thus one might argue that motivation to acquire academic literacy is important, but that it depends

on the experience one has had with the possible purposes to which it is put in one's prior learning experiences. This once again underscores the importance of context, including institutional context, biography and practice in the acquisition of academic literacy. According to Ivanič *et al* (2009:51) practices involve "purpose(s), identities, roles and values, participation, activities and processes". Hamilton (2000) identifies the key elements of a literacy practice as participants, settings, artefacts and activities. A comment from a lecturer of English literature at Stellenbosch University illustrates several of these facets in combination: the artefact (the book), the influence of people (the parent) and the influence of values:

There were always books in our home and we were always told that the most valuable thing that you could gain is an education and that ran throughout the way the family did things (Leibowitz 2009:267).

The mention of books in the same sentence as "the most valuable thing" suggests that the book has value as a resource with which to engage and from which one can learn, as well as symbolic value. Gutierrez, Morales and Martinez (2009:216) describe artefacts, which can be material and ideal/symbolic, as playing an essential role in learning via culture:

Culture is conceived of as human being's 'social inheritance'. This social inheritance is embodied in artefacts, aspects of the environment that have been transformed by their participation in the successful goal-directed activities of prior generations. They have acquired value.

The socially situated view allows us to see academic literacy as being embedded within the social settings in which it is practised and acquired, and thus how most of the time we acquire literacy by doing and interacting, not only by being formally taught to read or write. Having experienced, engaged in and practised academic literacy before entering academia is a substantial advantage, which has accrued to the individual from childhood, through school to university. This presents two challenges: first, what to do when an individual has not acquired literacy via this gradual accrual due to an accident of birth and absence of luck, and second, to what extent can one formally provide this to substantial groups of students in a generic format early on in a student's career, as so many institutions attempt to do. I return to these vexing questions later in the chapter.

THE ROLE OF 'LANGUAGE' IN ACADEMIC LITERACY

An issue that appears to raise its head almost whenever academic literacy is discussed in South Africa is the role of language, especially second language, in learning. On the one hand, language is of course everywhere, and is the primary semiotic medium through which our thinking, values and attitudes are communicated. I say 'primary', because body language and manner of dress, for example, are also means of signifying, but they have far less depth and ability to convey meaning. According to Bourdieu, Passeron and de Saint Martin (1994:8) language and syntax "provides us with a system of transposable mental dispositions [which] go hand in hand with values

which dominate the whole of our experience and, in particular, with a vision of society and culture”.. But this matter is both more and less complex, than a simple one-to-one relationship between ‘language’ and thinking and learning. We have all heard the argument that language, for example English, French or isiXhosa, is a key factor in inhibiting the learning of students who study in their second language. This word ‘language’ is thus often equated with academic literacy itself. Arising from my study on the literacy biographies of 36 students having English, Afrikaans or isiXhosa as main languages at UWC (Leibowitz 2010) I argue that proficiency in the dominant language is a necessary, but not sufficient condition for academic success. This is because other aspects of the discourse are vital: the discursal forms, but also, the understanding of the purpose or function of the forms. This is something that students are inclined to point out themselves. In my research with the 36 students studying Linguistics at UWC, one isiXhosa-speaking student said, for example, “The way I analyse things is different from the way my lecturers analyse things. This is always the case, even in Xhosa, so I can’t say English is the barrier” (Leibowitz 2010:161). A similar observation has been made at a historically white South African university where students’ writing in an additional language attributed their achievement with reference to their English, but the researchers felt that this was “a fairly minor, and sometimes non-existent, category in most departments” (Kapp & Bangeni 2009:594).

The work of Cummins and Swain (1986) on the distinction between Basic Interpersonal skills and Cognitive Academic Language Proficiency is useful in understanding the relationship between on the one hand, language as first or second language, and discourse or academic literacy, on the other. They write that if one acquires certain academic forms and ways of engaging with knowledge in the first language (Cognitive Academic Language Proficiency) it is easier to acquire these forms in an additional language. Thus there is a follow-through of practices engaged in in the first language, to practices engaged in in the second, less familiar language. This point is well illustrated in the account of reading and writing in English, by a student at UWC whose first language was Afrikaans:

Student: I think it [English] has been a block to my understanding, depends also now on what it is, what type of thing it is that I am reading or that I am writing about. If it is a factual thing then, I mean, if you get something in class that you have to read, then it usually takes me two or three times to really read through it and understand what is going on. But if it is something, you know, like, not a factual thing but something interesting or that type of thing, then it doesn’t take that long for me to understand.

Researcher: And writing essays in English?

Student: Also depends on the type of topic. Factual things take quite a long time really for me to understand and know what I am talking about, unless it is something I have heard people spoke to me about in class or something and then I can relate to what I have heard and what is in the book (Leibowitz 2010:159).

This interchange demonstrates how language as first or second language is one of several elements that influence a student's acquisition of academic literacy. Prior engagement with content, and prior exposure to genres such as fiction or non-fiction, would be other significant elements. Language and genres are among the various aspects of communicative and literacy practices included in the framework developed by Ivanič *et al* (2009) for their study of literacy across the curriculum.

The tendency to attribute causality to matters of linguistic form such as mastery of a language like English was criticised by Nightingale (1988), who demonstrated how language errors in a student's writing can emanate from a students' lack of familiarity with the underlying forms of inquiry. Lea and Street (1998) give an example from the writing of a student who wrote proficiently in terms of form in a subject where he was familiar with the material, and less proficiently in a subject where he had not mastered the underlying epistemology and values. They suggest that an approach which focuses on the underlying epistemology (1998:10/15):

... might open up areas of inquiry and reinterpretation that would revalue much student writing, shift attention from surface features of 'literacy' to deeper features of epistemology and of authority, of the kind indicated above, and perhaps explain much of the miscommunication between tutors and students that is coming to be documented as researchers focus on academic literacies.

From the study on 36 students studying academic literacy at UWC I concluded that:

... because limited proficiency in the dominant language often co-occurs with inadequate mastery of the written academic register, it is easy to understand why many educationists refer to difficulties with the additional language as the problem, when it is only one among the many challenges facing multilingual students (Leibowitz 2005:676).

Another important observation from the same study was that there is not a neat and predictive sequence for acquiring academic literacy among students learning in an additional language. One cannot assume, for example, that students will achieve a specific level of basic communicative proficiency in a language before acquiring a deeper level of engagement with forms of inquiry in that language. Some students acquire communicative proficiency and surface mastery more quickly than others. And yet others might be the ones to appreciate more quickly the function of practices such as analytic debate or referencing. The following example from an essay by one of the 36 students in their first year demonstrates a clear understanding of the purpose of argumentation in an essay and of referencing to support a point of view, and simultaneously, an evident lack of fluency in English and proficiency with regard to punctuation. The student is providing evidence why he agrees with the statements that extroverted people learn a second language easily, even though the literature does not always support this. He is demonstrating that he is familiar with some of this research, and provides an example from his own experience, which he was asked to do, in an essay:

For example it is often argued that an extroverted person is well suited to language learning. However, research does not always support this conclusion. Mr Kruger's reader 1995 p. 37 have a weighty support with argument that an extroverted person is well-suited to language learning. After matric I went out to seek a job ... (Leibowitz 2010:185).

In the same study there were contrasting essays written by students from the same educational and linguistic backgrounds who wrote nearly flawless essays in English, but who displayed very little engagement with the theory and who had not adopted the forms of enquiry required for the assignment. This lack of neat, predictive sequencing does not make curriculum design any easier, and calls for a more flexible and student-oriented approach.

One of the most interesting examples demonstrating the interwovenness of teaching and language is an Australian study by Baik and Greig (2009) on the impact of an adjunct English language tutorial programme on the academic performances of first-year architecture students. The 'ESL' (English as a second language) students were able to join a tutorial within the same programme before the final essay was handed in. Two of the aspects covered were the opportunity to repeat the course content, and a more language-focused element. In evaluative responses it became clear that the ESL students valued most highly the opportunity to go over the work again, far more than, if at all, the language-focused components. The writers were not expecting this outcome.

THE INSTRUMENTAL VIEW OF ACADEMIC LITERACY

Thus far we have considered a problem with the way academic literacy is defined, in that the student's home language is ascribed a dominant role, more than is warranted in many cases. A second theoretical issue bedevilling planning for academic literacy in the curriculum is the belief that academic literacy is an autonomous and coherent set of skills that one can teach to students in a decontextualised manner, by formal instruction in institutions. Each institution blames the previous one for not imparting this package of skills. As Griesel and Parker (2009:19) write in a study on graduate attributes and employability, "[i]n most countries an adequate foundation for these competencies will have been laid in the schooling system before students enter into higher education". However, schools are merely building upon the acquisition of academic literacy that will have begun in the home. Then lecturers of second- and third-year courses blame lecturers of first-year courses, teachers of post-graduate courses blame teachers of undergraduate programmes, and so on. This leads to an assumption that lack of communication skills and academic literacy can be remedied or filled with a course for a specific group of students in their first year of study, rather than being something that is acquired through use, in context and "by degree/s" (Taylor, Ballard, Beasley, Bock, Clanchy & Nightingale 1988). The instrumental view is featured in Barrie's typography of strategies for dealing with graduate attributes, which

he describes as “best addressed by the provision of an additional remedial curriculum” by “non-disciplinary teachers” (2004:265).

This instrumental approach leads to academic literacy being seen as a handmaiden to the disciplines, thus of lower status. Thus international students in Anglophone countries and students from ‘disadvantaged schools’ in South Africa, who do not have full access to the dominant language or dominant forms of literacy in the institution tend to be described in terms of deficit or pathology. In South Africa Boughey (2002) has criticised the pathologising of the student, and with regard to the international student, Turner (2011:3) refers to the “relentlessly remedial representation of language issues in the institutional discourse of higher education”. Turner (2011:4) maintains that pedagogic practices such as the seminar or lecture “are quintessentially language or languaging practices” and that language only becomes visible when it fails to live up to transparency (2011:29) and that this is when deficit and remediation set in.

IMPLICATIONS FOR CURRICULUM DESIGN

What, then, are the implications of a socially situated view of academic literacy for curriculum design and planning? One important implication is that the facilitation of academic literacy does not necessarily imply a focus on form or language. Here I digress to my work at UWC: After doing so much with students about their language in the Computer-supported English course and in the writing centre, Wendy Woodward, my collaborator in the English Department would write, “But why don’t the students’ essays improve?” The answer lies in their understanding of key concepts and key processes of enquiry, which was more significant than their engagement with form. In ‘Attention to Form in Students’ Writing: the CSE English 1 Editing Programme’ I concluded:

The issue of the focus on form is more elusive, once again. We cannot prove statistically that such a focus has any worth. We can, however, note that this is a perceived need of a significant number of students, who have found the material useful. The literature, as well as the contradictions in the students’ opinions, shows us that the issue of form is rather more complex than it may seem at first sight: the curriculum as a whole needs to communicate to students that it is but one aspect of writing; that attention to content and meaning is more important and might well help improve their own form. Although attention to form is necessary, it must be more thoroughly located within the curriculum than this course has been (Leibowitz 1994:185).

So after all the hours I put into this innovation, this is a very quiet admission, I think, that it was not worth the effort. The answer for the curriculum might lie less in a focus on form *per se*, and more in the ecological approach that stresses “apprenticeship in applied settings, access to empowering modes of discourse, guided instruction that leads to self-regulated learning, and understanding learning in cultural-historical contexts” (Gutierrez *et al* 2009:223).

A second implication would be the idea that the responsibility for the acquisition of academic literacy lies with all educators. Ivanič *et al* (2009:19) maintain that “[i]t is therefore the responsibility of all educators to consider the communicative aspects of pedagogic practices”. The counter-arguments to integration of academic literacy into the curriculum is that if one only integrates academic literacy into the mainstream curriculum, the following are real threats, as I have heard in my work in two higher education institutions, and in participation in several review processes:

- “They” (the academics in faculties) don’t know how to do it or don’t understand language.
- “They” refuse to do it or don’t want to understand language.
- The responsibility to attend to this will die away over time.

We should not create too absolute a division between the general concept of pedagogy and that of language and academic literacy. In many universities there is a clear separation between the roles of professional development practitioners and academic literacy experts. The latter group often start working directly with students, and as they start realising that their work would have more impact on a greater scale if they worked directly with lecturers or with policy and the curriculum, they end up working in parallel, but rarely in collaboration, with professional development practitioners. Elton (2010) and Jacobs (2005) argue for partnerships between disciplinary experts and language experts, which in the South African context Jacobs describes as having ‘transformational’ potential. The disciplinary expert brings that knowledge of the discipline to the partnership, while the academic literacy expert brings experience with teaching and learning, and of students grappling with meaning, into the debates (Lillis & Scott 2008). This may be so, but a more holistic strategy for curriculum change would be partnerships between disciplinary experts, language practitioners and academic development practitioners (Jacobs 2007).

One of the strategies advocated in the literature for advancing academic literacy is that the rules of the discourse be made explicit (Bouhey 2002). This does not necessarily imply making the conventions explicit for the students, although at certain points it might be, as Elton (2010) suggests. In more general terms, Turner (2011) calls for ‘linguaging’ which she sees as agentic, involving both acquisition and a critical approach. She writes that lecturers need to become culturally reflexive. Surely one does not need to become a language specialist to do this?

I have been making a strong argument for the location of responsibility for language and academic literacy across the lecturing cohort and across the curriculum. However, I am aware that this should be informed by the delicate balance within curriculum design, of focusing on the needs of students on the one hand, and on staff capacity and timetabling considerations, on the other. If student concerns were the only factor, one would plan the language and academic literacy strength of modules according to what the student would need to acquire, and at what point in the curriculum this

would be required. However, the dominant discourse in most institutions remains that language and academic literacy is not the responsibility of all teachers, and many academics would feel unconfident of taking on this responsibility. Thus, a short-term view might well require curriculum planning to take into account where the desire and expertise to facilitate academic literacy lies currently in an institution, while planning for a longer-term and more situated approach.

Up till now I have been arguing for an approach that seeks to acculturate students as seamlessly as possible into the language and academic literacy practices of an institution and a discipline. One might well turn this position on its head and ask, is this indeed transformative, and why is the emphasis not on reorienting the institution itself to the needs of diverse student and even staff populations? Is there no role for re-evaluating the academic standards themselves, and for reorienting the curriculum? This challenge was issued in South Africa as long ago as 1995 by Ndebele, and is posed internationally by writers such as Lillis and Turner (2001). Thus partnerships involving language and disciplinary experts are not innately transformational, it depends on the degree of cultural reflexivity and desire for change amongst educators, a point Michael Joseph made in 2011 at a conference on content and language-integrated learning.

This brings me to a point about content knowledge versus process: if we argue that graduate attributes are not only about what a student acquires, but also about how they acquire these attribute and about what they come to be, can we not extend this proposition to academics and curriculum planners: expertise is not purely about the knowledge that educators have, but the processes they undergo to extend and learn to share this knowledge with students, and what they have come to be? In this sense, graduate attributes as a concept can be extended to educators, as 'educator attributes'. This is especially the case if we adopt a broader understanding of academic literacy as acquired gradually, and as influenced by context, biography and practice. In this view, fostering academic literacy is neither the sole responsibility of the academic literacy or language expert, nor of the school teacher, nor of the lecturer of first-year students, nor of the academic seeking to enhance his or her own academic literacy. Rather, in common language, 'we are all in this together'.

This discussion on academic literacy also raises broad questions for discussion with regard to graduate attributes. It cautions curriculum planners, teachers and researchers to be wary of assuming that these attributes can be fostered independently from the disciplines and, equally importantly, independently from influences such as institutional or social context.

IMPLICATIONS FOR RESEARCH

A socially situated view of academic literacy would encourage research into the role of academic literacy and into its facilitation across the curriculum, as well as into stand-alone courses. It would also encourage partnerships between literacy experts, disciplinary experts and experts in higher education teaching and learning. As was

suggested in the previous section, such partnerships should begin with an open-minded, reflexive and critical habit of mind. Once again, if we wish to advocate graduate attributes of criticality, creativity, or problem-solving, our research approaches to facilitate this should bear traces of these attributes.

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THE UNIVERSITY CURRICULUM AS INSTITUTIONAL TRANSFORMATION

Driekie Hay & Nalize Marais

INTRODUCTION

The university curriculum, like institutional systems and procedures, continuously responds to external and internal forces which eventually reflect the identity, aspirations, world view and educational philosophies of a university. Curriculum development as mirrored in an institution's qualifications, academic programme offerings and research profile can therefore not be detached from societal and cultural transformation, or from evolving trends that drive global and national change in the workplace as well as in societies.

The university curriculum determines students' entire intellectual experience. Although it is 'concrete' in that it illustrates an academic plan reflecting a designed progression of coursework framing a student's higher learning experience from first to final year, it transcends disciplinary boundaries and holds discursive patterns, acting as a shaping force in the lives of those who teach, learn, administer, manage and lead within the institution (Terwel & Walker 2004). Therefore it facilitates the development of extra-curricular knowledge, as it prepares graduates not only to fulfil their responsibilities in the labour market but also to become responsible citizens, contributing to overall human capital endeavours. It also addresses the social, economic, educational and political issues of the day. Contemporary perspectives on the curriculum in higher education see the necessity of such academic plans as being representative of both the educational and social experience, as a way of being part of, understanding, and assessing a constantly changing world.

Universities that are highly valued and known for best practices in higher education, facilitate students' teaching and development via outstanding and innovative curricula, subsequently attracting world-class students. Students compete for placement at such universities, because these institutions are known for creating a culture of intellectual engagement and rigour, and for nurturing an intensive research culture. They are also known for a knowledge transfer culture that permeates all teaching and learning activities within a vibrant and embracing social and globalised context.

An adaptive curriculum that continually evolves with social, political and professional demands ensures constant institutional transformation. In such institutions graduates are produced who have acquired the essential attributes and competencies to sustain themselves in the national and global world of work. In contrast, institutions applying a static curriculum cannot evolve with national and global changes and trends and therefore sustain a predominant ideology and institutional culture. Such institutions deliver graduates that are not familiar with current social and professional demands. The transformative power of a university curriculum is apparent: if well-designed, a university curriculum could become a vehicle for institutional change as it exposes students to knowledge and experiences that restructure the *status quo* within the institution. It also has the power to change societies over time and is often referred to as the epitome of institutional restructuring.

The overarching purpose of this chapter is to discuss how a curriculum can not only transform a national higher education but also be used to change an institutional culture known for its conservatism to one embracing societal changes as well as national and global imperatives. Yet, as the notion of transformation is often a loaded one, it is appropriate first of all to provide a brief exposition of transformation and to contextualise it in terms of this chapter. This chapter also discusses the concept of institutional transformation and locates it within a broader societal transition by reflecting on changes in the political, social, economic, cultural and educational structures of a society and in particular that of South Africa.

CONCEPTUALISING TRANSFORMATION

In an organisational context, transformation refers to a process of profound and radical change that orients an organisation in a new direction and takes it to an entirely different level of effectiveness. Unlike the terms 'turnaround' or 'reformation' (which implies incremental progress on the same plane) transformation implies a basic change of character and little or no resemblance to the past configuration or structure. Transformation in the context of this chapter reflects deep change and restructuring, enabling institutions of higher education to address challenging needs and demands posed by the a changing environment.

We argue that the process of institutional change cannot be viewed as a single event, but rather as a multifaceted progression involving complex personal, political, organisational and pedagogical relationships across deep chasms of difference. Transforming higher education implies fundamental, intensive, and far-reaching restructuring, involving strategic modifications in core elements of the institution that significantly affect ways of thinking and consequently influence customs, norms and rules (Smart 2008). This requires a willingness to re-evaluate structures of knowledge and the shaping thereof, influencing patterns of relationships and organising principles of institutional life within times of staggering economic, political and societal change.

In the latter context Makgoba (1997:3) distinguishes transformation from reform by referring to “blueprint change”. This requires that universities do not need reformation or restructuring only, but also a radical transformation, altering the core functions of institutions, implying changes in leadership, student influx and the typology of universities, affecting the types of academic programmes offered. After 1994, for example, South African universities were challenged by volatile social and political circumstances that demanded profound change in the predominant patterns of institutional leadership, operations and strategies. Yet these changes are still taking place in terms of equity targets, funding arrangements, allocation of research grants and earmarked funding. The transformation of South African higher education institutions was thus a deliberate attempt to address the segregated educational practice left by the apartheid dispensation that is currently superseded by institutional imperatives that appreciate a diverse social and political space (Jansen 2009; Terwel & Walker 2004). An emancipated curriculum, on the other hand, is free from segregated knowledge and racist practices. Profound change within an institution should be accompanied by an authentic, deliberate step towards creating a socially and politically accommodating campus culture.

Transforming a university’s curricula represents a radical change in the core of the institution’s identity, as the curriculum underpins the fundamental functions within the institution, reflecting leadership, research, teaching, typology and related academic programmes (Hannan, Baron & Hsu 2006; Isern & Pung 2007). Such radical change involves the redirection of an institution’s existing orientation and the entire transformation of organising principles and structures, even its vision and mission statements (Greenwood & Hinings 1996). The emphasis on the radical transformation of the institution’s core functions is therefore not restricted to apparent or physical transformation, but also represents cognitive transcendence, implying an epistemic redress that fundamentally changes the way that academics think about content and curriculum. Cognitive transcendence implies that the institution adapt the theory and thought underpinning curricula to reflect not only a renovation of academic content, but also an understanding of changed societal and political beliefs. Changes in higher education since 1994 perfectly illustrates how curriculum restructuring supported national goals of transforming an entire society; in an attempt to redress societal issues concerning race, ethnicity, gender and diversity in different policies and strategies.

CURRICULUM TRANSFORMATION IN SOUTH AFRICAN HIGHER EDUCATION

The history of curriculum in the South African higher education system changed radically after 1994. *Education White Paper 3: A Programme for the Transformation of Higher Education* initiated several change initiatives implicating the restructuring of curricula. The National Plan for Higher Education (NPHE) was implemented during 2001 to enact the vision portrayed in White Paper 3. It aimed towards equity, diversity and redress of past imbalances, as well as the production of graduates that enhance social

and economic development in South Africa. The National Qualifications Framework (NQF) complemented the vision of the NPHE as it described that an academic programme should be educationally transformative. The underlying premise of the NQF is that curricula should be coherent, integrative and designed to address gender, language and race issues, driving socioeconomic development in the country. The Higher Education Qualifications Framework (HEQF – 2007), which replaced the NQF, was designed to enhance articulation among programmes and provide opportunities for widened access and subsequent higher participation rates.

Aligning curricula with the HEQF poses new challenges to universities as it involves changed processes of programme approval and accreditation, novel quality assurance procedures and possible changes to an institution's programme and qualifications mix (PQM). The HEQF strongly emphasises the design of academic qualifications that provide graduates with intellectual capabilities and skills that may empower graduates, enrich society and enhance the economic and social development of the country (RSA DoE 2007). As part of transforming the broader society, graduate qualities should be developed through opportunities for service learning, integration of indigenous knowledge and the development of critical intellectuals.

Another significant change in the restructuring of South African higher education was the introduction of a changed typology for universities. This was done by introducing universities of technology which replaced technikons and comprehensive universities which were formed by merging and/or amalgamating traditional universities with technikons and/or teacher's colleges. Consequently, comprehensive universities provide instruction in a wide array of industrial arts and applied sciences. The rationale was that a changed typology would facilitate inter-organisational mobility, enabling opportunities for articulation, therefore influencing access and admission requirements for the various kinds of institutions. Articulation among cognate qualifications in different types of institutions implies that students can articulate from a Technikon diploma to a university qualification. Such inter-organisational mobility is enacted by means of effective curriculum design, ensuring that each institution offers a curriculum that develops graduates who show unique attributes, in line with the typology and identity of each institution. Yet whether these typologies will have the desired outcome is debatable as there still seems to be an overlap and duplication in programme offerings and qualification structure as particular universities of technology are still struggling to claim their niches in the education market. It therefore seems that substantive long-term change is more likely when transformation is strategically linked to curricula, reflecting the academic content, learning activities and extra-curricular knowledge and competencies.

As already implied in this chapter, a well-designed curriculum, based on sound pedagogical principles and theories, enhanced by effective teaching and learning practices, controls what knowledge students obtain. Stemming from this assumption, the curriculum can rightfully be regarded as a strategic institutional change agent as curriculum decisions are normally based on the purpose and goals of higher education.

In the South African context, as in many other countries, higher education is often driven by an institutional understanding and interpretation of transformation concepts, how and what institutions perceive for example as social justice, discrimination, social cohesion and the burning societal and research imperatives of the time. Once that has been agreed upon, curricular changes are needed (CHE 2009), featuring as an institutional force that fosters intellectual progression and social development as it grants opportunities for critical inquiry and debate in social issues, while reducing and even preventing social conflict. The curriculum can rightfully be described as a system based on an institution's ideological purposes (Smith 2006), implying that institutional imperatives, embedded in the curriculum, could foster pluralism as it nurtures social cohesion by challenging societal complexities.

A key argument in this chapter relates to the fact that transformation in higher education institutions is not generally prioritised *per se*. Institutional planners and practitioners often find it difficult to conceptualise academic programmes that are aligned with national and global change initiatives as falling within or adding value to institutional imperatives as governments come and go. If no deeper fundamental changes take place within the institution, curriculum changes will stay superficial – only trying to comply with political and social demands. Yet, fundamental curriculum changes will lead to a critical review of the content, practices and theories conveyed in the curriculum. These changes are associated with changed pedagogies, new modes of delivery and contemporary instruction methods. The aforementioned fundamental changes enable institutions to manage diversity, referring to racial, socioeconomic and contextual differences among the student population.

In responding to the needs of a diverse student population, South African higher education introduced a number of initiatives to deal with the varying needs of learners – all of these affecting the curriculum and the teaching thereof. Accordingly, in view of the demand to widen access, universities are increasingly required to accommodate students from differing schools, implying that there will be unprepared students with inadequate admission points. Given that higher education addresses the historical imbalances in the country and promotes socioeconomic development by providing education to a larger percentage of the population, institutions have had to adapt their admission policies. They have also had to introduce extended curriculum programmes, academic development programmes and academic staff development programmes to address the educational needs of students from disadvantaged education and economic backgrounds. This situation has assisted in changing the face of universities in South Africa as at least most South African universities are no longer elitist institutions. This is evident in the latest enrolment figures as published by the Department of Higher Education and Training and indicating that black students constitute almost 70% of the enrolments in higher education. Curriculum transformation has also occurred at a systemic level, redressing amongst other things, the under-representation of black and female staff members and setting targets for the enrolment of black students in science, engineering, technology, accounting and health-related programmes. These

imperatives are still reflected in the allocation of national research funds and funding from the department of science and technology, for example.

Social and political redress has mandated curricular redress, specifically in terms of participation rates and access to higher education. The following paragraphs explain how the widening of access affects curriculum and programme offerings in South African universities.

IMPLICATIONS OF THE WIDENING OF ACCESS FOR CURRICULUM TRANSFORMATION IN SOUTH AFRICAN HIGHER EDUCATION

The widening of access in South African higher education has been one of the key decisions influencing education reform since 1994. Underpinned by racial prejudice, a segregated education system excluded many South Africans from higher education in the past. The subsequent restructuring of the South African higher education system introduced changed policies that, among other things, focused on increased participation by creating opportunities for widened access. Consistent with the principle of widening access to higher education, institutions are required to revisit their admission policies and accordingly create additional opportunities for students to enter the higher education system. As stated in the HEQF, the South African Qualifications Authority (SAQA) highlighted the importance of qualifications that might be achieved in whole or in part through recognition of prior learning (RPL) (SAQA 2002). Universities may therefore provide access to potential learners whose qualifications for study are not formal, by recognising and accrediting prior learning and experience. RPL supports transformation as it addresses barriers to learning by expanding access to higher education, while facilitating mobility and progression within this sphere, thus accelerating the redress of past unfair discrimination in education and training.

Several South African universities offer extended degree programmes to support students who are unable to meet the requirements for direct entry into the degree programmes. The extended degree spreads out the curriculum of the first year over a period of two years and enables students to adapt to the higher education environment, while they are supported by tutors, additional contact time and developmental programmes that aim to enhance language proficiency and academic literacy. In addition to extended courses, institutions offer bridging programmes or career preparation courses, providing students with additional opportunities to obtain access to higher education. This confirms the necessity of well-designed preparatory and/or extended academic programmes as such programmes enable institutions to address issues of equity by providing access to previously disadvantaged groups.

Widened access concurs with increased participation, because it implies that more students are admitted to the system. Students from diverse schools, backgrounds, ethnicity and socioeconomic status are granted opportunities to access the systems, increasing diversity on higher education campuses. Although South African universities have largely moved beyond racial and social prejudice by adopting policies that

reflect widened access, inclusion and increased participation, the increasingly diverse student populations are still associated with conflict and subtle forms of segregation on campuses. Curriculum content, the teaching thereof and the language of instruction could either assist or hamper the social transformation of university communities and that of the broader society in which they are located.

Historically, South African universities were known as 'Afrikaans' or 'English' institutions, referring to the language of teaching and learning. In contrast to historically English universities, the historically Afrikaans universities have a legacy of homogeneity, implying that students from these universities conform to similar social and political practices. South African universities have a moral and social duty to foster social cohesion on campuses, but the transformation process has often resulted in segregation among groups of students, sometimes leading to forms of racism and conflict. While several campuses provide instruction in one language, such as English, others offer either dual- or parallel-medium teaching. Parallel-medium education implies that classes are presented in both Afrikaans and English. In our experience the majority of black students opt for English as their medium of instruction in parallel-medium universities and are therefore largely excluded from the Afrikaans (and primarily white) classes. Although parallel-medium instruction appears to be a solution to accommodate diverse languages, it still seems to isolate groups of students.

THE ROLE OF COMMUNITY-SENSITIVE LEARNING PROGRAMMES

It is possible, through a well-designed academic programme, to engage isolated groups in community-centred learning activities. The curriculum encompasses a student's learning experience, supported by several modules that provide credits towards the attainment of a qualification. However, this description presents a rather rigid view of the curriculum and only refers to content modules that are covered during the course of study. Very often, practitioners fail to recognise the normative and social value of extra-curricular activities such as awareness campaigns, community engagement initiatives, work-integrated learning and service learning. These initiatives have the potential to drive networking and collaboration among students, thereby enhancing social cohesion and cultivating a sense of responsibility for the development of society. Exposing students to community issues nurtures mutual respect and cultivates normative values as they develop an understanding of 'otherness' while learning with and from those whom they initially disagreed with or disliked.

By transforming higher education curricula to address segregation and conflict, universities are preparing a new generation of South African citizens. However, the onus is on academics to develop an open-minded, unbiased scholarly approach to teaching, enabling higher education institutions to transcend continuous societal and political change by engaging students in rigorous academic discourse and critical thinking.

In 2003, the Joint Education Trust (JET) made a considerable investment towards introducing and implementing service learning in South African higher education

institutions, all of these with a shared vision to bring students to the heart of communities, reflecting on curriculum – its contents, relevance and application possibilities. Initial reports indicate that this intervention yielded positive results as reflected in students' and academic staff's experiences.

THE ROLE OF CURRICULUM IN ENHANCING CRITICAL THINKING SKILLS AND ACADEMIC DISCOURSE

Responsible and productive citizenship is the outcome of excellent university education. The bedrock of responsible citizenship is the ability to think critically and debate issues. This implies that education must provide students with opportunities to engage in intellectual discourse. A lack of academic rigour among students underlines an inability to accept that others' points of view are as worthy as their own. Stimulating intellectual debate among groups is therefore an intentional attempt towards preparing graduates for their role in society and represents a political response to a dire need to skill the working population of a country.

Students' engagement in academic discourse and critical thinking relies on a curriculum that stretches beyond a specific set of knowledge and competencies cognate to a single qualification. In contrast to the traditional curricular understanding, the contemporary higher education curriculum is accompanied by a theoretical understanding of campus discourse as constituent of knowledge. Accordingly, a curriculum guides students to immerse themselves in the discursive priorities of a community composed of present social relations, cultural assumptions and political circumstances. This aims to effect a gradual internalisation of diverse communities' practices, juxtaposing cultures, beliefs and practices and challenging the 'otherness' among groups of students on campuses, teaching people to co-exist. The university campus becomes a deliberative space where the sharing of different people's commonalities is based on the understanding that people need to learn to live with the 'otherness' of people whose ways of being may be perceived as being threatening to one's own (Waghid 2009).

The curriculum, although representing a specific programme or qualification, consists of unacknowledged but highly consistent messages transmitted to students. These hidden messages are a powerful means of reproducing educated citizens that fulfil a critical and responsible role in society. Beyond the debate revolving around the research-teaching nexus, universities have a historical mission of service to society. The only means of influencing society is by designing a curriculum with a multiple focus, referring to disciplinary knowledge as well as to the extra-curricular, generic and hidden messages conveyed to students.

THE CURRICULUM AS INSTITUTIONAL CHANGE AGENT

Higher learning reflects comprehensive education as opposed to compartmentalised learning programmes based on superficial components that separate the curriculum

from extra-curricular knowledge. Specialist training focused within particular disciplines and careers is therefore complemented by a generic knowledge base to ensure that universities develop undergraduates to become critical thinkers, competent citizens and compassionate human beings who can manage themselves in diverse and globalised communities. Although each qualification is focused on a specific field of knowledge, constituting specialisations for future career opportunities, undergraduate curricula facilitate broad and generic areas of study, aligning with institutional objectives and ideologies.

Curricular coherence addresses the extent to which programmes articulate a common set of knowledge and skills associated with educational goals and institutional imperatives. Coherence in the curriculum is powered by unifying and competing tensions in higher education, referring to centripetal (unifying) and centrifugal (stratifying) forces. Coherent curricula reflect a significant centripetal force, as it connects pieces of knowledge and representations of meaning into understandable disciplinary relationships (Johnson & Ratcliff 2004). In addition, an alternative form of coherence refers to the centrifugal curricular forces that address the diversification of societal and student needs by serving the social, political and economic needs of society.

Centrifugal curricular forces integrate generic knowledge into the undergraduate curriculum that equips students for local and global challenges, ensuring that undergraduates experience a coherent and progressive learning opportunity that could be incorporated as a core curriculum, featuring as part of the undergraduate curriculum. Such a core intellectual experience gives students a chance to build an array of thinking and communication skills, while acquiring a broad base of knowledge from diverse disciplines and cultures. It promotes active learning and engagement through scholarship and application of knowledge and fosters critical thinking, creativity, integrity and flexibility.

In some cases, a university's history, culture and traditions instinctively ensure that students are exposed to a uniform intellectual base. In contrast, deliberate innovative curricular practice is often required. In the USA, the term 'liberal arts' is used in higher education to denote a curriculum that imparts general knowledge and develops students' rational thought and intellectual capabilities. The liberal arts therefore do not focus on professional or vocational curricula emphasising areas of specialisation. Another intentional intervention is the implementation of a core curriculum. The value of a core curriculum that is integrated into undergraduate programmes lies in the transformative nature thereof, as it assumes that there is a uniform body of knowledge that all students should acquire. A uniform body of generic knowledge is incorporated by means of specific compulsory modules underpinned by mandatory core content, creating the opportunity for all students to develop a common set of knowledge and competencies, extra-curricular to their disciplinary study.

HOW A UNIVERSITY UTILISES THE CURRICULUM FOR INSTITUTIONAL CHANGE: A CASE STUDY

Regardless of radical policy and demographic changes as outlined in this chapter, from time to time South African campuses still experience tension that is congruent with a culture of segregation and subjugation of certain groups. Unfortunate incidences such as the Reitz incident (February 2008), the establishing of a racist Facebook group and discrimination against gay and lesbian couples is evidence of a pervasive intolerance towards 'otherness' and promotes segregation and colonialism on university and college campuses. The subsequent Soudien report rightfully stated that "the real difficulty we have in this country is imagining ourselves outside of our history" (University World News 2010:1).

The University of the Free State (UFS) is currently experiencing a radically changing context. The negative impact of the unfortunate Reitz incident and the conflict that followed emphasised the dire need for redress not only on this campus, but in South African higher education as a whole. Three years after the Reitz incident, this university finds itself in a different situation: the institution is being guided by new visionary leaders, has introduced an academic turnaround strategy and has established a research focus on a human capital project. The success of these initiatives relies on a deep-rooted epistemological change that affects the entire institution. Within this changed context, the UFS also intends to implement a deliberate intervention to create uniformity among a diverse student body that represents socially responsible intellectuals who show an understanding for complexity and the interrelatedness of global and national issues. In addition to developing students' critical thinking skills a module has been introduced in an attempt to deal with the segregation of students caused by the current medium of instruction which divides students into Afrikaans (white) and English (primarily black but also a small group of white English-speaking students).

IMPLEMENTING A CORE CURRICULUM

In this particular case, the core curriculum represents a compulsory extra-curricular module that will be facilitated during the first year of undergraduate study. Regardless of the qualification, each undergraduate qualification therefore incorporates a compulsory core module in the curriculum that is presented during the first year of study. This module, representing the core curriculum, is designed to enable students to achieve the following:

- Understand and engage in complex local and global challenges from multiple perspectives.
- Practise critical thinking and apply it in a systematic way.
- Demonstrate basic reflective academic reading, writing and argumentation skills.
- Reflect on how higher education empowers students to engage with the challenges facing the 21st century world locally and globally.

The core curriculum is aimed at addressing eight critical questions (see Table 11.1), facilitated as an extra-curricular year module. In addition to promoting critical thinking and engagement with peers, the questions aim at addressing political and societal issues, endemic to diverse campus communities. Weekly mega-class sessions will be presented by well-established scholars and role models from the national and international arena. Apart from weekly classes and tutorials, students are required to reflect on their personal learning process via online journals, and are required to participate in online group discussions, tutorials and forums. As part of the core intellectual experience, students are exposed to key readings and engage in debates relating to the eight topics listed in Table 11.1.

The implementation of a core curriculum complements the application of the recently implemented Higher Education Qualifications Framework (HEQF) that aims to guide institutions of higher learning in designing programmes and qualifications that provide graduates with intellectual capabilities and skills that impact on social development (Pandor 2007, cited in RSA DoE 2007). Strategic changes in a university's curriculum may influence the learning and social environment of a campus by providing opportunities for critical and rationalist thinking, as well as enhanced academic discourse and in return prepare students to become responsible citizens in a pluralistic society.

The core curriculum requires innovative curriculum design and strategic programme planning that challenges authoritarian and often inhibiting pedagogies by introducing a humane and democratic knowledge framework (Mahomed 2004). The implementation of the core curriculum ensures that students are exposed to life-changing intellectual experiences and in effect challenges the social dynamics and structures on campus. However, the possibility of additional credits within each undergraduate degree might affect students' academic performance as additional notional learning hours are implicated. Curriculum designers can account for this possible risk factor by prioritising the effective application of modularisation. Modularisation provides a means of structuring and delivering the curriculum – it refers to the description of modules in terms of outcomes that can then be matched and exchanged as part of a process of accumulating credit towards academic qualifications (certificates, diplomas and degrees) (Ensor 2004). It is our contention that a well-designed modular system, striving towards academic integrity, merits attention as it creates flexible pathways of ordering knowledge, while it challenges the traditional notion of what it means to acquire disciplinary knowledge.

TABLE 11.1 Topics addressed by the Core Curriculum

The Core Curriculum
Is Google making us stupid?
Students are required to position themselves in a global world and to reflect on their role in addressing global and societal problems. They will: <ul style="list-style-type: none"> ▪ Assess the negative effects of technology ▪ Discover how technology can be an aid to address challenges facing the world ▪ Apply critical management skills as part of an undergraduate research project
How do we deal with our violent past?
South African history persistently recurs as a sensitive societal issue among South Africans. This section deals with the problem by looking into the following question: <ul style="list-style-type: none"> ▪ Do we forget everything about the past in the interest of moving forward, or do we deal with the past to ensure it never comes back?
What does it mean to be fair?
The Soobramooney case is an excellent example to facilitate a discussing on ‘what is fair’ in society. This topic exposes students to legal reasoning and judges on the matters of fairness.
How do we become South Africans?
This topic demonstrates how national identities are formed and discusses how these identities are contested settled communities where native status remains a contentious issue.
Are we alone?
Exposure to the nature of the universe and how scientists measure and make sense of the worlds around us will be addressed by discussing the following questions: <ul style="list-style-type: none"> ▪ What are the conditions necessary for other life forms to exist elsewhere? ▪ How do we know that such life forms exist elsewhere? ▪ How do we know that such life forms exist, or not? ▪ What counts as evidence in making these judgements in the field of science? ▪ How close are we to making definitive conclusions about life on earth?
How small is small?
This theme discusses the implications of nanoscience, arguing whether it will be the next industrial revolution. Students are required to debate around topics, e.g. what does nanoscience teach us about ourselves and the world?
Did God really say?
Students are exposed to classic sets of passages from the Old Testament in the Bible relating to good and evil, raising questions on the transmission of knowledge, the authority of text and the meanings that ordinary people assign to divine communication. <p>The following themes are addressed:</p> <ul style="list-style-type: none"> ▪ Rivalry among various fundamentalisms, e.g. Christian, Islamic, Jewish, etc. ▪ Making meaning of divine texts ▪ On whose authority do we act? ▪ The relationship between secular and religious authority
Why is the economic crisis described as global?
Globalisation influences our understanding of economics, education, culture and politics. Transactions take place on planetary scale, fundamentally altering social and economic relations around the world. This theme provides discussions on how an economic crisis in one country triggers global collapse of interconnected financial systems: <ul style="list-style-type: none"> ▪ How do economists explain this phenomenon? ▪ How could so many smart people have been wrong? ▪ What are the limits of economics as explanatory framework?

A modular curriculum is based on two sets of assumptions related to the divisibility of knowledge and the underlying ‘power-sharing’ among producers and consumers of the curriculum. A modular curriculum is therefore polycentric in nature, as it focuses on the transmission of knowledge and skills, while adhering to coherence, academic integrity and flexibility within the system. Incorporating the core curriculum in this particular case complements the polycentric nature of a modular curriculum as it firstly focuses on the transmission of fundamental transformative knowledge and competencies to a diverse student population. In addition, curriculum design keeps to the principle of widened access to higher education via enhanced flexibility of entry and exit points in the system. Lastly, although the core curriculum remains extra-curricular to the specific discipline, the integrity of knowledge as a guiding structure is sustained.

CONCLUSION

This chapter drafts the university curriculum as a reflection of a student’s core intellectual journey. In this case, curriculum transformation is institutionally prioritised, demonstrating a proactive intervention towards addressing societal, political and economic issues. Although it comprises designed progression of coursework, the curriculum encompasses both extra-curricular knowledge and hidden agendas as it includes courses that transcend the boundaries of academic knowledge. This particular core curriculum creates opportunities for social and intellectual engagement with peers and the wider society, nurturing a culture of understanding and openness towards diversity.

We have emphasised that a curriculum is exposed to continuous transformation in attempt to accommodate national and global development in higher education. The curriculum can subsequently not be regarded as a static entity, but rather as a powerful vehicle that continually adapts and guides learning in response to environmental and global demands. Stagnant curricula that do not transform with societal and global demands produce unskilled graduates and consequently jeopardise the world of work. If graduates are ill prepared, employees will not be capable of meeting the demands of the job market. Such a situation will result in underdeveloped human resource capabilities, enhanced unemployment and consequently in economic detriment. It will also fail national and global research demands by not preparing students for postgraduate study and subsequently not contributing to the national or global knowledge economy.

In addition, we maintain that curricula ought to be restructured in such a way that it reflects the identity and ethos of an institution. A university striving for excellence should produce graduates who are regarded as global citizens, intellectuals and critical thinkers. This emphasises the role of the university curriculum at both under- and postgraduate level, as it guides students’ intellectual journey and accordingly aligns graduate competencies and attributes with the vision, mission, identity and ethos of the institution. The curriculum is therefore a critical shaping force and strategic vehicle that is linked to the fundamental functions of a university. Curriculum design can therefore be regarded as a decisive function that guides change within the institution.

In conclusion, we contend that a strategically well-designed curriculum acknowledges the academic as well as the socially and personally transformative effect of a student's learning experience. Such a curriculum can be regarded as a deliberative step towards the development of a socially just and equal society. This chapter exemplifies the strategic and transformative value of the university curriculum in implementing a core curriculum via one extra-curricular module. It addresses historical, social and intellectual demands and therefore denotes the curriculum as an effective change agent that can imbue students with the ability to transcend their current historically and demographically shaped identities.

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12

THE BOTHERSOME BUSINESS OF CURRICULUM IN DOCTORAL EDUCATION

Barbara M Grant

The PhD ... is a research training. ... [T]he relationship with a supervisor is different from that between two academic colleagues working on related research projects. It has to be seen as a form of teaching. Like other forms, it raises questions about curriculum, method, teacher/student interaction, and educational environment. (Connell 1985:38)

INTRODUCTION

Curriculum is a bothersome business that is, perhaps, nowhere as elusive in higher education as it is in the doctoral zone. To illustrate: During a recent dinner conversation with a friend in the last weeks of a PhD, he exclaimed vehemently, "The first year of the PhD should have been compulsory taught courses." (In Aotearoa/New Zealand, as in South Africa, the PhD follows the British model and consists of three to four years of full-time research.) When I asked him what he thought such courses should include, the main thing on his mind was the importance of a system for referencing. Enter curriculum at its most basic – an indubitably necessary but also fairly simple skill to be learned and arguably one that should have been mastered long before entering a doctoral programme. In the same conversation, my friend described how he had written a couple of years earlier to an international expert in his field with a complex methodological question and had received a disappointingly short – in fact, slightly angering – answer. Revisiting the e-mail recently, however, he had realised that the expert's brief comment contained a version of the insight that his doctoral work had finally led to. In other words, he now saw a pearl where before he had seen an unpalatable breadcrumb. Enter, again, curriculum, but this time at its most difficult – as complex ideas for which we may not be ready and the attendant emotional (over?) reactions. Curriculum in this form can afflict any student (with repercussions for the teacher) but we might especially anticipate it in a form of education – the doctoral programme – that takes the work of producing new knowledge to heart.

This anecdote raises some of the pesky issues that surround the idea of curriculum in relation to the most advanced stage of higher education – what Connell above and many others describe as ‘research training’. I prefer a less technical-sounding term: research education. Debates over nomenclature notwithstanding, by and large we do not talk much about the curriculum of doctoral research education. There are many reasons for this, but a significant one is that raised by Connell: we don’t often think of supervision as teaching or, if we do, we fantasise that it’s of the more dialogic (conversational) kind. More likely though, perhaps because we want students to engage actively with the demands of becoming a scholar/researcher, we often emphasise the *independent* dimension of research education and underplay the weighty *disciplinary* expectations that are curriculum and, as such, are the proper object of teaching. In order to be successful, a doctoral candidate must submit (*submit*) a thesis that demonstrates a range of attributes such as knowledge, skills, dispositions, modes of address to the satisfaction of an existing body of scholars/researchers.

In earlier work (Grant 2003), I argued that graduate – master’s and doctoral – research supervision is a pedagogy involving dynamic power relations between three “active, changing and changeable agencies” (Lusted 1986:3): supervisor, student and curriculum *qua* thesis. I wanted to make a case against a view of supervision as simply a top-down power relation between supervisor and student; I also wanted to foreground the way in which the thesis, as a “dynamic artifice [that] continually exerts disciplinary power” (Grant 2003:187), mediates the supervision relation in complex ways. Moreover, a thesis is not just about what we think we know but also about how we came to know it. In other words, it is about how we have conducted ourselves in relation to other researchers in the field and the knowledge being formed and transformed. In that work my focus was on analysing the relations between supervisor and student.

In this chapter, I turn to the third agency, thesis-as-curriculum, to explore its significance in relation to doctoral education. Drawing on institutional documents from my own university, and acknowledging national drivers, I will examine the nature of a doctoral curriculum and the pedagogies that might best be employed in its teaching. I will also address the ever-present but problematic politics of doctoral, indeed any, curriculum, drawing on an illustrative case study from a project that explored the supervision of indigenous doctoral students in Aotearoa/New Zealand. I am confident that this case will resonate with the South African context where, if anything, these politics are likely to be more salient.

The curriculum of doctoral education can be described as a blend of knowledge, skills and dispositions that are typically learned through a relatively intense face-to-face pedagogical engagement between a novice and mature scholar/researcher (or two), sometimes supplemented by a research group comprising ‘colleagues’ with different levels of experience. If a student is lucky, there will be other doctoral students nearby to talk to, maybe form writing and/or reading groups with; their department might

provide seminars or journal clubs or even writing retreats. The student may learn much through participation in a wider network of national and international scholars in her/his research area accessed via conference attendances, on-line discussion lists, reviewing work and/or supervisor introductions. Crucially, a doctoral curriculum differs significantly from any other in higher education because a core expectation is that new knowledge will be created by the student. Such a creative process is in its nature unpredictable and demanding: new knowledge does not emerge on command and, sometimes, when it does emerge it is not recognised as such.

AN INCHOATE CURRICULUM?

In 1985, when Connell asserted that supervision “has to be seen as a form of teaching” (1985:38), he was knowingly interrupting a dominant assumption that graduate research supervision, perhaps doctoral in particular, was an aspect of an academic’s research activities. In my own institution, academics typically list their supervision alongside their other research activities and achievements. Moreover, Aotearoa/New Zealand’s national research funding system, the Performance Based Research Fund (PBRF), has a prime focus on “rewarding and encouraging excellence”, including:

- The production and creation of leading-edge knowledge ...
- Supporting current and potential researchers (for example postgraduate students) in the creation, application and dissemination of knowledge. (Tertiary Education Commission 2010:14)

In calculating the research productivity of an institution, the PBRF counts research supervision twice: first, as evidence within the “quality evaluation” measure of an individual academic’s “peer esteem” and “contribution to the research environment”⁷³ and, second, as evidence within the “postgraduate research degree completions measure” of institutional effectiveness (Tertiary Education Commission 2010:17).⁷⁴

Within some disciplinary contexts, the close association between supervision and research makes evident sense as doctoral students are funded from external research grants, assigned a chunk of a larger research project for their doctoral study, and typically work as junior members (apprentices) within vertical research teams led by senior researchers and usually including other mid-career researchers and/or

⁷³ The relevant indicator of peer esteem is “[t]he ability to attract graduate students or to sponsor students into higher-level research qualifications, positions or opportunities because of the staff member’s research reputation.” (Tertiary Education Commission 2010:112). The relevant indicator of contribution to the research environment is “Contribution through students and emerging researchers – supporting and mentoring students to achieve postgraduate qualifications and to develop as researchers” (Tertiary Education Commission 2010:114).

⁷⁴ There is one other measure that is taken into account, the external research income measure. The measures are weighted in the funding formula as follows: Quality evaluation 60%; research degree completions 25%; external research income 15%.

postdoctoral fellows. This is reflected in the authorship practices of those disciplines where it is rare for an individual to author a work alone. However, in other disciplines, the student's project has anything from a strong to weak link with their supervisors' research, is rarely funded from a larger research grant and, crucially, is seen to belong to the student. Again, this is reflected in a quite different authorship tradition where the inclusion of the supervisors' names on work arising from the research would be questionable, even when warranted (although the current climate of accounting for every research output is ushering in some changes in this tradition).

From the supervision-as-research standpoint, the educational model is that of master-apprentice and the vertical pedagogical environment of researchers with all shades of experience is also a communal one of close proximity between those individuals. Again, within some disciplinary contexts this makes evident sense as a good deal of research skill and insight lies in practical technique and the associated problem solving, much of which can be gained *in situ* by observing others interacting with 'things' or by being coached. But this is not quite the same in others, where there is not the same level of practical knowledge involved nor the social environment of the 'studio', 'workshop' or 'laboratory'.

The curriculum of apprenticeship education is typically a mixture of learning on the job, usually with occasional formal (for example theoretical) input. Initially apprentices work on other people's projects, although to become a master (in the case of doctoral education, an independent researcher), they must produce a 'masterpiece' that demonstrates their advanced skill and creativity. Thus central to an apprentice's curriculum is the development of a sense of what constitutes the hard-to-define qualities that make work original. In the end, though, judgment of whether or not a putative masterpiece meets this standard is reserved to other, if not all, the masters in the relevant 'guild' (in the academic context, read 'discipline').

Over the past 20 years, the implicitness of doctoral education – arising from its origins within the tradition of apprenticeship – has been challenged and has been linked to overlong completion times (Latona & Browne 2001; Leonard 2000). A national response in the UK, driven largely by the funding agencies, has been to extol the dubious concept of 'transferable skills' with the practical consequence of adding a series of compulsory research skills courses to the first year of the doctorate (Leonard 2000). Within Australasia, at least, a common response has been to draw up a graduate profile that details the achievements (often also cast as transferable skills) expected of doctoral students. Such documents allow us to guess at the lurking curriculum. For example, my own university has produced a *Graduate Profile: Doctoral Graduate* that lists 25 attributes grouped under five sections:

1. Specialist knowledge (4 attributes).
2. Effective communication (2 attributes).
3. General intellectual skills and capacities (10 attributes).

4. Independence, creativity and learning (5 attributes).
5. Ethics and social understanding (4 attributes).

Generally speaking, most of the attributes are carried over from the University's *Graduate Profile* (the expected attributes of a "student who has completed an undergraduate degree", which in turn provides the basis for the postgraduate coursework and master's research profiles).⁷⁵ The changes between the postgraduate (master's level or equivalent) research and doctoral profiles are worthy of some examination here for the light they throw, or not, onto the institution's curriculum expectations for doctoral-level education.

In total, there are 14 textual changes, of four kinds. In the specialist knowledge section, two attributes are now qualified by the phrase 'high level':

- A *high level* understanding and appreciation of current issues and debates in the field of study.
- A *high level* understanding and appreciation of the philosophical bases, methodologies and characteristics of scholarship, research and creative work.

In the same section, another attribute has been modified by the inclusion of the word 'original':

- An understanding of the relevance and value of their *original* contribution to the local and global communities' knowledge of fact, theory, and/or mastery of practice.

In sections 2, 3 and 4, ten attributes have been modified by the addition of the word 'advanced', a synonym for higher level. Here is an example from each section:

- An *advanced* ability to communicate effectively using written and spoken English and/or Maori, or other languages where appropriate (effective communication section).
- An *advanced* capacity for critical, conceptual and reflective thinking (general intellectual skills and capacities section).
- An *advanced* capacity for creativity and originality (independence, creativity and learning section).

Lastly, one attribute has been modified by the addition of the word 'strong':

- A *strong* willingness to seek continuous improvement in research skills and quality of research (general intellectual skills and capacities).

Of the 14 amendments, 12 are tautologous: doctoral education *is* a higher or more 'advanced' level of education than master's, but the substance of this higher level remains unarticulated. The remaining two additions, 'strong' and 'original', are just as problematically vague. Even though the latter is recognised as the crucial hallmark

⁷⁵ All four profiles were sourced from the staff intranet at Auckland University on 28 January 2011.

of the successful doctoral thesis, the profile does not explain it at all. To find out more about originality, the student will most likely have to turn to other sources such as the plethora of ‘how to’ guides for undertaking doctoral work (see, for example, Barbara Lovitts’s 2007 book, *Making the implicit explicit: Creating performance expectations for the dissertation*, or Estelle Phillips and David Pugh’s 2010 *How to get a PhD: A handbook for students and their supervisors*).

As a source of insights into what comprises a distinctively doctoral curriculum, this particular student profile offers little. This failure is not unique to my university – indeed it is difficult to unambiguously define the qualities of advanced scholarship and creativity.⁷⁶ But, in an age where we increasingly expect explicitness from teaching staff with respect to educational outcomes, institutional inarticulacy irks students like the one in my opening anecdote – and, from my experience, it worries new supervisors too.

Another institutional site where we may find clues about doctoral curriculum is in the (seven) compulsory goals for the provisional doctoral year:

1. Full thesis proposal (normally completed within 6 months).
2. Production of one substantial piece of written work within 12 months.
3. Presentation of research progress to a departmental seminar.
4. Approval of full thesis proposal by the appropriate departmental/faculty postgraduate committee.
5. Ethics approval(s)/permissions obtained for the research (if required).
6. Attendance at one of the Doctoral Skills Programme Induction Days.
7. Undertake Diagnostic English Language Needs Assessment (DELNA) online screening. If a full assessment is advised, complete full diagnostic test and attend any language enrichment recommended by the DELNA Language Advisor.

The explicit message of these goals is that the doctoral student must make a certain amount of progress in the first year of registration in order to have that registration confirmed. This is consistent with the institution’s wider message of the importance of timely completion that in turn reflects a more rigorous government funding regime. In terms of curriculum, what this message could be said to be ‘teaching’ the student is a crucial ‘reality’ of academic life: research funding – albeit in this case indirect via the government fee subsidy – always entails limited time frames and particular performance expectations. (Students often think that deadlines and word-limits are unfair conditions of studenthood!) Another is that certain milestones should be achieved early in the process as well as a baseline of English language competence (as determined by a particular diagnostic procedure).

⁷⁶ Like South Africa, Aotearoa/New Zealand has a national educational qualifications framework. However, unlike South Africa, the eight universities are not required to register their programmes onto it, sharing instead a separate process for defining standards for each level of higher education and approving new programmes.

On the other hand, the subtext of these goals is that there is a larger set of sometimes baffling skills that the student must be able to demonstrate to an acceptable standard by the end of the first year: the ability to undertake an adequate literature review, design an appropriate methodology, display sufficient academic literacy and referencing expertise; give a persuasive oral presentation. And then there are all the expected organisational, technological and self-motivational skills that underlie the completion of complex and sizeable academic tasks. Such an implicit curriculum often seems to presuppose a certain kind of student, as illustrated by this doctoral student's comments (Harrison, McKenna & Searle 2010:190):

We're supposed to be so self-motivated that you just kind of set your own deadlines and you meet them and, if you don't, well that is your problem and nobody else's problem. And that's just so not the way I work ...

Entangled with all these expectations is the ability to work successfully with a more or less available, skilled and confident supervisor (or two), receiving and responding to their guidance and feedback, which is not uncommonly contradictory. In the end, tolerance of ambiguity may well be the key disposition required of successful doctoral students!

Many of these implicit aspects of the doctoral curriculum can be seen as generic knowledges and skills of the kind that can be taught in centralised extra-disciplinary contexts. For example, at my university there is a substantial programme of workshops and fora that address a whole range of skills and understandings relevant to doctoral education.⁷⁷ Underpinning this provision is an argument that many of the skills a doctoral student needs – especially the ones described above – are common across disciplines and arise from the shared genre of the doctoral thesis (Carter, in press) and the parallel trajectories of research activity in a wide range of disciplines. In a context of concern about the aging academic workforce, my university has also recently launched a pilot limited-access programme for 20 doctoral students entitled the Doctoral Academic Career Module.⁷⁸ Through a series of seminars that draw on the expertise of university staff, participants explore aspects of research, teaching and service/citizenship. The programme explicitly teaches a wide range of knowledges and skills associated with what it means to be an academic – arguably, this curriculum has long been an implicit part of doctoral education because of its central role in credentialing the next generation of academic staff. That there is a need for such a programme suggests that doctoral education, *per se*, is not teaching such capacities effectively (and that pre-doctoral education has not done so either). More likely, perhaps, access to learning these knowledges and skills has been quite uneven, depending in large part on the grace and favour of supervisors. For example, access to this kind of informal learning has often been more difficult for non-traditional students in particular (for example part-

⁷⁷ The interested reader can find more about this programme at <http://www.cad.auckland.ac.nz/index.doctoral>

⁷⁸ Again, information about the programme can be found at http://www.cad.auckland.ac.nz/index.doctoral_academic_career_module

time, women, indigenous, impaired, international) who are increasingly making up the body of doctoral students. In addition, significant increases in numbers of doctoral students overall have put pressure on limited professional development resources such as participation in undergraduate teaching.

Generic skills and capacities could and should possibly be taught within disciplinary contexts: Chris Golde, for example, claims the most important site of socialisation – what she and others have termed “academic integration” (Golde 2005:671) – for the doctoral student is the academic department, as the instantiation of the *disciplinary* community. Yet many departments do not have a critical mass of doctoral students to warrant such programmes and, perhaps more importantly, there are benefits for students both in mixing with others outside their departments and in being taught by staff who specialise in academic literacies. Discipline-based academics, typically recruited themselves from the most highly successful doctoral cadre, often take such literacies for granted and do not have the expertise to name them, let alone teach them, particularly to students who struggle to attain them. This lacuna in supervisors’ skills is pertinent in Aotearoa/New Zealand and no doubt so in South Africa, given the rapid and massive changes taking place in higher education.

Looking back at what I have explored so far, it is clear that while institutional documents only obliquely point towards a doctoral curriculum – and it is not common to talk about such a thing – it is surely present and in more than one sense. Most obviously, there is the formal body (or bodies) of knowledge that must be explored and critically engaged with. There are also advanced (professional) research skills encompassing “political, social and aesthetic elements” that are best “caught rather than taught” (Leonard 2000:187), preferably through immersion in a *habitus* and the pedagogy of coaching. Ultimately all must be embodied in the cumbersome doctoral thesis that functions as a “‘master-piece’ in the old guild sense of the carefully-done job which shows that an apprentice is now qualified to practice his [sic] trade” (Connell 1985:38).

Alongside such an explicit curriculum, there are many more or less hidden processes that mould the research student into a recognisable scholar/researcher/advanced professional – that one noun won’t suffice is suggestive of the multiple outcomes sought from research education and consequently the multiple sources from which curriculum flows. These include “messy affective processes” (Harrison *et al* 2010:193) that are often unacknowledged in higher education generally. And, to return to an earlier point, if we think of curriculum as what is currently known, there is the expectation that the doctoral student will produce an original insight or finding. In other words, she or he will redefine the existing boundaries of curriculum-as-knowledge, of what could be taught in the future.

TENSIONS BETWEEN KNOWLEDGE AND IGNORANCE

The requirement to produce new knowledge in doctoral education foregrounds a rather more taxing aspect of curriculum: namely, a tension produced in the expression of

positive knowledge. In committing myself to ‘knowing’ something, in the academically valued sense of staking out the space of my authority and *owning* some small parcel of knowledge, I inevitably eschew ignorance of other explanations of that thing – at best, temporarily. And if my ‘ignorance’ is spotted (for example, in a conference presentation or the viva – which is not called the oral defence for nothing!), it creates a moment of shame or fear.⁷⁹ Yet the tension between ignorance and knowledge can be symbiotic and generative: “Ignorance fuels knowledge production, which in turn creates new areas of ignorance to be investigated” (Singh 2010:31).

Under certain circumstances during doctoral education, however, the tension between ignorance and knowing may become overbearing for either supervisor or student or both, producing different kinds of unhappy effects within the individuals and/or the supervision relation. At times, for example, students may feel as if their supervisor or institution is deliberately withholding knowledge from them – as the student in the opening anecdote felt with respect to both kinds of curriculum mentioned in our conversation. Or, in another situation, students may begin their doctoral research thinking they already know the answer their thesis will provide (refusing ignorance) and so present themselves as unwilling to take advice or rethink their assumptions: such students can present as quite ‘unsupervisable’. Or sometimes supervisors may feel anxious about a student’s inability to forge a clear case for the contribution their work will make to the body of knowledge and be inclined either to dismiss the student as incapable or, in their concern, begin to do the thinking for the student. Another possibility is that, in some circumstances, supervisors *in their ignorance* (Singh 2010) will not be able to recognise the knowledge contribution that the student is making – this kind of circumstance is what I will consider now.

THE POLITICS OF CURRICULUM

Advanced knowledge within universities around the globe by and large proceeds out of the disciplines, Western-originating formations of knowledge/power that embody particular histories and truth-producing procedures.⁸⁰ One of the tensions within such knowledge formations arises from the need to police the boundaries – the norms and conventions – of the discipline while also allowing for new insights that might reconfigure the discipline in unexpected ways. The PhD, in particular, is the qualification that prepares and approves the new scholar/researcher both to teach and to research – and both to represent *and* shift the boundaries – within the discipline. For these reasons, curriculum as an artefact of disciplines is indubitably political (Bakker, Eskell-Blokland & Ruane 2010): certain forms of knowledge and modes of academic being

⁷⁹ These ways of knowing and defending knowledge via adversarial argumentation are culturally specific – and not all that attractive when you think about it!

⁸⁰ In response to a range of provocations, more and more doctoral research is transgressing traditional disciplinary boundaries with associated pedagogical challenges – see Barbara Adkins’s work (2009).

(subjectivities) are taken for granted while others are excluded. In post-colonial countries like South Africa and Aotearoa/New Zealand, there are significant challenges to the dominant disciplines/curriculum from students who do not identify with the knowledges and subjectivities produced there (Bakker *et al* 2010; Grant 2010a; Middleton & McKinley 2010) and who seek supervisors to support them in producing other kinds of knowledges and selves (Grant 2010b).

To illustrate this scenario, I draw on data collected through a recent research project entitled *Teaching and Learning in the Supervision of Maori Doctoral Students*. A senior Maori academic, who leads a national capability-building programme⁸¹ for Maori doctoral students, pulled together a team of two Maori (indigenous people of Aotearoa/New Zealand) academics with expertise in researching higher education and two Pakeha (descendants of British settlers of Aotearoa/New Zealand) academics with expertise in researching supervision. To pursue our enquiry into the supervision of Maori doctoral students, we interviewed 38 students and 20 Maori and non-Maori supervisors of such students (11 and 9 respectively) from across the full range of disciplines. We wanted to find out about how students and supervisors worked together, what particular issues emerged as a function of the students' identity as Maori, what issues were considered to be important in terms of promoting or hindering their progress, and so on. As an outcome, we wanted not only to contribute to the national and international literature on this topic, but also to offer insights and practical suggestions to current and future Maori doctoral students and all those who supervise them.⁸²

In the group of 38 students, many were individuals who had considerable life and professional experience (their median age was mid-40s and two-thirds were women). Many expressed a strong and explicit agenda to use their doctoral studies to improve the position of Maori within the socioeconomic and political landscape of our country. Coupled with this agenda, for many, was a desire to draw on matakura Maori (Maori knowledge and wisdom) for various reasons. Some students wanted to highlight and to validate knowledge they were deeply attached to. For example, when asked why she enrolled in a PhD, Amiria, a Maori doctoral student, said:

Because I felt that I had something to contribute to the health of our people, and I felt that what I had to contribute may be able to solve a health problem, a current health problem in Maori ... And I was encouraged by the old people at home to complete research to a doctoral thesis level, and particularly by [a well-known elder] when he was alive. And I feel very passionate about the knowledge that I'd acquired, particularly from my grandmother when I was a child, and I felt that definitely I had something to contribute ...

⁸¹ MAI Te Kupenga, the capability programme, is supported by Nga Pae o te Maramatanga (NPOTM), one of seven publicly funded national centres of research excellence.

⁸² We have so far prepared a series of six resources for students, available at <http://www.tlri.org.nz/teaching-and-learning-supervision-maori-doctoral-students>

Some were using a 'Kaupapa Maori' (Smith 1999) research methodology that was imbued to varying degrees with cultural practices, values and ethics. While these dimensions of curriculum motivated students, they also posed significant challenges. For example, students found a Kaupapa Maori approach to research was met with incomprehension and resistance from some supervisors, as emphasised by Ashley, a Maori doctoral student:

I had to justify all the way what the PhD was about because, no matter who I talked to, they're saying, "What's that ...?" And I was saying, "You're in Aotearoa. You know, can't I just be me, can't I live as Maori?" And every time I saw somebody – they were all positivists so they had no idea about qualitative, let alone [Kaupapa Maori] – they sort of go "Oh, you're doing interpretive research?" And I said, "No, I'm [doing] Kaupapa Maori research." "Oh, you're doing interpretive research, are you doing phenomenological, are you doing grounded research?" And I was going, "Why do they keep boxing me like this?" Because they know nothing else.

Moreover, tensions occurred between Western and Maori epistemologies in terms of access to knowledge and commensurability of ways of knowing. Complex (and, to the non-Maori eye, unfamiliar) accountabilities, not to mention competing allegiances, can arise within Kaupapa Maori research: for example, students may find themselves accountable to individuals or groups within their community – sometimes through kinship relations – who hold strong views that do not easily align with the student's academic work or even the views of other individuals or groups within the same community. Finding helpful supervisors to navigate a successful doctoral thesis through this kind of work was not always easy. Ngaio, a Maori doctoral student, articulated this challenge:

[I]n terms of some of the theoretical directions that I wanted to take, I wanted a supervisor who I wouldn't have to argue with ... 'cause I didn't have the time to do that, working full-time. So it was really important for me to have a supervisor that I did not have to enter into a debate with about everything. ... Later on defending some of the things that were coming out of the research ... but not at the early stages where I was really exploring things. I didn't want to have to defend my complete and utter belief that Maori theory actually exists in whakatauki [proverbs] and what [other kinds of Maori knowledge]. I wanted somebody to say, "That's quite a logical. Okay now, how are you going to ... demonstrate that?"

In some disciplines or departments there might be only one (Maori or non-Maori) academic, if that, with the necessary background to give the student confidence in the direction of her/his work. Moreover, because Western knowledge formations have consciously excluded many kinds of traditional knowledges as being beyond the pale and only suitable as objects of study rather than as themselves theory-making frameworks, supervisor resistance or refusal to such projects is always a possibility – as Ngaio points to. There are persistent difficulties with bringing personal experiences

and stories, elder wisdom, and mythological and proverbial forms of knowing into the ambit of research. (Yet, a stronger approach might be to think carefully about how these knowledges can enrich our study of particular research questions and displace exhausted knowledge frameworks.)

From a Maori perspective, supervisor resistance may well be anticipated because the students will most likely have experienced it before. Indeed, in higher education contexts as much as any others, it is often difficult for the dominant group to accept their ignorance of the other without feeling threatened or angry (as Jones 1999 has shown). Acceptance may be particularly difficult for experienced scholars from that group because they are formed, with a role as disciplinary guardians, to be those 'who know'. Yet, as Singh (2010) suggests in relation to Chinese doctoral candidates studying in Australia, in being willing to supervise from a position of *acknowledged* ignorance, supervisors can not only learn a good deal, but they can also stimulate those students' knowledge production through allowing them to draw their diverse intellectual heritages into conversation with those of the West. Out of such conversations, original knowledge contributions are likely to arise.

SOME CONSIDERATIONS FOR PRACTICE

Ultimately, all doctoral students must submit their thesis to the judgement of their examiners, who in turn represent the wider community of researchers and scholars in a particular discipline or field. This submission, which looms over the research project from the beginning, can never be forgotten by student or supervisor: it reminds them that the student's work must conform to an implicit curriculum. In my view, a central consideration for doctoral education is the need for supervisors and institutions to engage actively with the strenuous task of talking about that curriculum, attempting to unpack what is often left implicit and elusive. This is particularly the case where students come from contexts where social and political oppression has framed their sense of self and their familiar orders of knowledge, and where they hope to use doctoral education as a route to bring those selves and knowledge into dialogue with the Western canon and/or to create better futures for their communities.

Because there are no simple answers to matters of doctoral curriculum with their intriguing and contested "political, social and aesthetic elements", to re-quote Leonard (2000:187), active engagement with them is unlikely to be promoted through the necessarily generalised discourse of institutional guidelines. Nor should it simply be left, as in the past, to the privatised space of supervision, because while some students will get good teaching (coaching, mentoring) others will get none. The richest context for such an intervention is the existing collegial forums where students and supervisors meet together – departmental seminars, for instance, or journal clubs: we need to rethink these forums to make them more consciously *pedagogic* spaces. And we probably need to create new such spaces, for example by forming vertical reading and writing groups that include experienced researchers as well as doctoral students, or by drawing students into reviewing work for journals and conferences and coaching

them as a group in what is required. Such events are well augmented by the invited contributions of academic literacies experts who are usually insightful analysts and teachers of academic culture and expectations.

For supervisors, thinking about the supervision relation as a form of teaching and learning, as Connell suggested back in 1985, may provide a useful conceptual shift that enables thinking and talking about curriculum. Rather, too, than just focusing on the research and the thesis (curriculum-as-knowledge), it is vital to think of supervision as a pedagogic process through which the student's identity will be transformed into that of the scholar/researcher. This opens consideration of the kind of curriculum that would best teach for an often difficult process of personal change. Although the recent research we undertook into the supervision of indigenous doctoral students showed that considering supervision as teaching (and meddling in another's personhood) is not easy, most supervisions would benefit from closer attention to a richer, more confronting even, conception of pedagogy. Such a conception might prompt supervisors to address the nature of our responsibilities more thoughtfully so that we may assist students in surviving the considerable trials of doctoral education: the production of an original contribution to a field of knowledge, the negotiation of often-considerable differences between the worlds of supervisor and student, and the long travail of forging a student self into scholar/researcher.

In post-colonial societies like South Africa and Aotearoa/New Zealand, collegial forums and the intimate dynamics of supervision are equally vulnerable to the painful politics between coloniser and colonised. Working together inside those memories and ongoing realities, while sometimes confronting ignorance, is hard. Making space to include into the fabric of academic knowledge-making – the very curriculum that comprises doctoral education – the knowledges and subjectivities of students for whom our higher education systems were not designed can unsettle even a seasoned supervisor. The test, echoing that for the student in terms of carrying out her/his research, is to find ways to supervise well in spite of that unsettlement.

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PART THREE

METHODS FOR INTERROGATING,
REVISIONING AND IMPLEMENTING
CURRICULUM CHANGE

13

ACTION RESEARCH AND CURRICULUM TRANSFORMATION

Adri Beylefeld

Appraising the products of our scholarly effort should not be in the spirit of 'This is it', but rather in that of 'What have we here?' If this, then what possibilities are next?
(Eisner & Peshkin 1990, cited in Henning 1993:114)

INTRODUCTION

When society changes, higher education curricula require corresponding changes because, as noted by Patesan and Bumbuc (2010), institutions of higher education are at the top of the education pyramid; they represent the end of formal education and offer the last opportunity for entry into the world of work. There is wide consensus on the educational outcomes that will help students survive in a 21st century workforce, the most prominent being the development of habits of mind, learning strategies and skills fostering continued growth after graduation and contributing to lifelong learning (Chaka & Ramothea 2010; Harris & Cullen 2009; Holland 2006). A well-recognised way of achieving these goals is through revision of traditional curricula to shift the focus from instruction to active learning (Graffam 2007).

There is a notion that equipping students with the skills to search for information themselves is more valuable than expecting them to assimilate large volumes of learning content. This notion gained prominence and became the basis of new policies in South Africa in 1997 when the government announced the introduction of outcomes-based education (OBE) at all levels of the South African educational system (Jacobs & Chalufu 2000). Institutions of higher education were encouraged to make their curricula responsive to the social and economic agendas of the country. The South African Qualifications Act No. 58 of 1995 (SAQA 1997), the Education White Paper no. 3 (RSA DoE 1997), and related regulations and guideline documents demanded tertiary education encompassing not only knowledge, but also skills and attitudes needed for successfully entering the world of work. This meant a shift towards focusing on previously neglected lifelong learning skills such as self-direction, solving problems

derived from professionally authentic contexts, collaboration with others, finding and evaluating information, communication and meta-cognition (Gultig 1997; Jansen & Christie 1999).

In the School of Medicine at the University of the Free State, the start of the academic year 2000 marked the inception of a new, five-year undergraduate Learning Programme for Professional Medicine, leading to an MB ChB qualification. The shift towards an innovative undergraduate curriculum was inspired by Outcomes-based Education (OBE) guidelines and policies. The arguments for renewal were furthermore aligned to criticism of traditional medical curricula at international level. At that time, numerous studies pointed towards the need for curriculum change in medicine on the grounds that traditional curricula did not promote active, collaborative and self-reflective learning (Fowell, Maudsley, Maguire, Leinster & Bligh 2000; Guilbert 2001; Harden & Crosby 2000). Starting to apply OBE principles in the new Learning Programme for Professional Medicine (MB ChB) was also consistent with the guidelines for student-centred education of “tomorrow’s doctors”, formulated a few years earlier by the General Medical Council (GMC 1993) and the World Health Organization (Boelen & Heck 1995). In South Africa in particular, the *Cape Town Declaration* (1995) on the education and training of a “doctor for Africa” and principles for quality assurance formulated by the Health Professions Council of South Africa (HPCSA 1999) provided momentum to curricular change initiatives.

Curriculum 2000, as the new programme was commonly referred to, introduced significant changes to the traditional pattern of teaching. Main curricular features of the innovation were fewer lectures, supplemented by directed learning; a greater focus on the social and cultural underpinnings of health and disease in core content modules; early clinical experience; new forms of assessment; and ultimately, alongside core outcomes in the biomedical sciences, the inclusion of critical cross-field outcomes. In general, the management and academic staff in the School of Medicine (‘the School’) were in agreement with the larger societal goal of higher education, namely not only to help students develop the skills, abilities and dispositions that would enable them to manage academically, but also to prepare them for the complexities and responsibilities of leading socially accountable lives. What was not totally clear was how outcomes such as these would be pursued and, in essence, how they would be assessed.

CURRICULUM TRANSFORMATION REQUIRES A SPECIAL KIND OF KNOWLEDGE

The modern concept of curriculum change is that of an ongoing process of enhancing the quality of teaching and learning (McDonald & Van der Horst 2007). Quality, in turn, is understood to refer to a process of self-reflection and co-construction of knowledge for improving theory, propelled by an ongoing improvement strategy in the management of the process so as to improve action (Martí & Villasante 2009). This view is in line with what a good social order presupposes, namely that people who are constructing a new order should be accountable for what they do. Against

the backdrop of such an understanding, curriculum change, quality and improvement have to do not only with doing different things, but also with subtle and unique details to which only the participants in a particular learning situation have access. Therefore, wanting to ‘measure’, by standardised scales, the outcomes and effectiveness of curriculum changes brought about by a critical, reflective disposition towards daily practice makes little sense (Stacy & Spencer 2000). What is needed, instead, is a special kind of knowledge that may help educational practitioners understand and effectively deal with particular problems related to educational change. This kind of knowledge, as distinguished from empirical-analytic and historical-hermeneutic ways of knowing, may be generated through action research (Somekh 2006; Somekh & Saunders 2007).

The usefulness of action research to move away from a casual type of curriculum improvement, towards collecting data/evidence more objectively and systematically with the distinct goal of acting on it, is well recognised (McKernan 1996; Nason & Whitty 2007; Noffke & Somekh 2009; Somekh 2006). This goal, however, remains out of reach if an educator simply asks him- or herself superficially: “Am I doing a good job?” and goes on to ask students and other stakeholders the same question, thus evoking the idea of a traditional type of research evaluation (Martí & Villasante 2009). From a post-modern perspective, Kvale (1995, cited in Reason 2006:191) refers to action research searching for validity in this vein as “an expression of a modern legitimation mania”. Action research that leads to sustainable innovation seeks validity in the “craftsmanship of inquiry” (Reason 2006:191), incites discourse (Lather 2001, cited in Reason 2006:191) and is characterised by a forward-looking approach to trying out new ideas. Depending on the research findings, these ideas may or may not lead to changed practices. There will nevertheless always be an implementation of findings, informed by the learning of those involved in the research (McNiff & Whitehead 2006) and accompanied by changed attitudes towards what is being researched (Kember 2000).

When curriculum change is considered from an action research point of view, there is a great deal more at stake than change on paper: more often than not curricular inquiry through action research leads to practitioners changing themselves, their relations with others, their values and their ways of working (McNiff & Whitehead 2010). More than half a century ago Anderson (1956:247) identified these imperatives as the very reason why some people frown on action research: “[I]t is much more difficult to carry on [sic] research with the idea of improving our own practices, for it is always easier to suggest that someone else change[s].”

What follows is a selective account of how I approached my task as leader of an 8-credit module on the development of general skills (Module MEA112) with the deliberate intention of using action research and self-reflective learning to make rigorous, informed judgements and decisions about the integration and assessment of critical cross-field outcomes in the first year of the Learning Programme for Professional

Medicine. It tells the story of how action research afforded me the freedom, space and autonomy to be more than a recipient of SAQA's directives on critical cross-field outcomes. In partnership with other staff members committed to changing the undergraduate medical curriculum, I could pay attention not only to the products of the decision to explicitly include and assess the so-called 'soft skills' in the medical curriculum, but also to the process in terms of nuance, setting, interdependencies, complexities and the context of the School of Medicine at the University of the Free State.

FINDING A FOCUS

Starting points for action research projects typically arise from experiences of discrepancies (Altrichter, Posch & Somekh 1993). The tension between seeing general skills development as something that should happen *in addition* to academic study, or as something that should happen *through* academic study, was at the centre of the dilemma that spurred this study. Cognisance was taken, on the one hand, that embedded development and assessment of performance-based tasks requiring students to apply certain key skills was the route to follow because students tend to be unmotivated and puzzled by skills modules that are not firmly embedded in subject learning content (Fallows & Steven 2000). On the other hand, there was ample evidence to show that embedded skills development often meets with resistance from academics who fear that an embedded approach will further reduce their limited curriculum time (Fallows & Steven 2000). Against these literature perspectives as a background, the following questions started crystallising in my mind: What is the *status quo* in core modules as far as the incorporation of critical outcomes are concerned? What is it that I would like to change? What are the possibilities for change through the medium of changed assessment tasks?

Following the advice of Winter (1996), who emphasises the point that certain key issues should be sorted out before action research begins, I had to decide what problem should be singled out for thorough investigation, and also acknowledge where my genuine interest lay in respect of this problem. Assessment of critical outcomes became the focus. The reasons for focusing on assessment were twofold. Firstly, it was clear from literature that assessment often does not reflect curricular changes; that it tends to suffer from the *bolting-on syndrome* in that assessment practices are not subjected to the same degree of scrutiny as content or teaching and learning approaches (Biggs 1999). Secondly, assessment would be within the locus of my control as I was the leader of the module on general skills. Reinforcement of the notion to focus on assessment came on 22 November 2000 when Professor Filip Dochy from the University of Leuven presented a workshop on assessment on the campus of the University of the Free State. Many of the issues that I was grappling with at that stage were addressed, including the following: how to break down student and staff resistance to new forms of assessment; how to use peer assessment in a way that would render reliable results; how to introduce group assessment fairly.

The possibility of systematically reflecting on issues such as these, illuminating the process of solving perceived problems, and trying out new ideas with a view to improving the situation, appealed to me as a suitable focus for an action research project. Wilkes and Bligh's (1999) observation that the hard-to-measure character of general skills often causes the development of appropriate assessment strategies to come as an afterthought in curricular change, occurring when the teaching staff are already exhausted, and the students frustrated and confused, gave impetus to the plan of linking my day-to-day task as module leader with action research. Following a practical approach to improving the assessment of critical outcomes held the promise of preventing such a situation in the School of Medicine. As practitioner-researcher I would be able to plan, act, observe and reflect (Zuber-Skerritt 1995) on a multifaceted situation by taking multiple views into account. An action research approach would further permit the process to be flexible, without relinquishing scientific rigour (Badger 2000).

What settled the matter in favour of following an action research approach was my understanding of action learning (presupposed in any action research project), as derived from the work of Revans (Zuber-Skerritt 1992). I could identify with the following values as guiding principles for my educational practice as module leader: acceptance of the dynamics of real life, and thus acceptance of change as a reality; preparedness to take a critical look at the why, what and how of a specific part of that reality (in this case assessment of critical outcomes) as seen from different points of view; flexibility to modify my practice; and finally, a never-ending striving after quality and improvement. Within an action research framework I would be able to show how I examined, interrogated and communicated these values that give meaning to my professional life as a lecturer.

ACTION RESEARCH CYCLE ONE, 2000: DOING SOMETHING NEW

The research project, spanning three year-long cycles, was conducted under my leadership when I studied my teaching practice *in situ*, but I was assisted by a collaborating team of four academic staff members who formed the module development team, and also served as a validating group for the research. As noted by McNiff and Whitehead (2006:250), one cannot do action research alone: "While you may have the original vision of how things can be improved, you must find others who share your commitment." Furthermore, for action research to succeed as a form of curriculum evaluation, surroundings conducive to experimenting and accepting new ideas are required. Such an atmosphere was created when the late Dean of the Faculty of Health Sciences, Professor CJC Nel, introduced a committee structure (see Figure 13.1) to take the curriculum change forward, requesting the various committees and work groups to evaluate their themes on a continual basis with a view to improvement (Faculty Retreat, Clarens, June 1998).

Stakeholders and role-players whose opinions were captured at different stages during the first year comprised a purposeful, yet comprehensive sample of all students enrolled in the first phase (year one) of Curriculum 2000 (90 students in 2000, 134 in 2001 and 140 in 2002), as well as ten academic staff members who acted as leaders of core modules.

Definition of the problem and initial planning

The focus on assessment referred to earlier was an emergent one that gained prominence only in the second cycle of the action research spiral, based on student and staff feedback, as well as on input from international consultants. A lack of a blueprint on what skills to include in the stand-alone Module MEA112, where to embed skills in core modules and how to assess the acquisition thereof formed the initial, less-focused educational concern. Hence, the primary purpose in Cycle One was to collect evidence to get confirmation that the skills development model the School had chosen was indeed the ‘correct’ one.

Action steps

The better part of four years was spent in preparing for the curriculum change that culminated in Curriculum 2000. Formulation of the original design for the module on general skills consisted of an iterative process between members of the work group dedicated to attending to general skills and other stakeholders represented in the committee structure depicted in Figure 13.1.

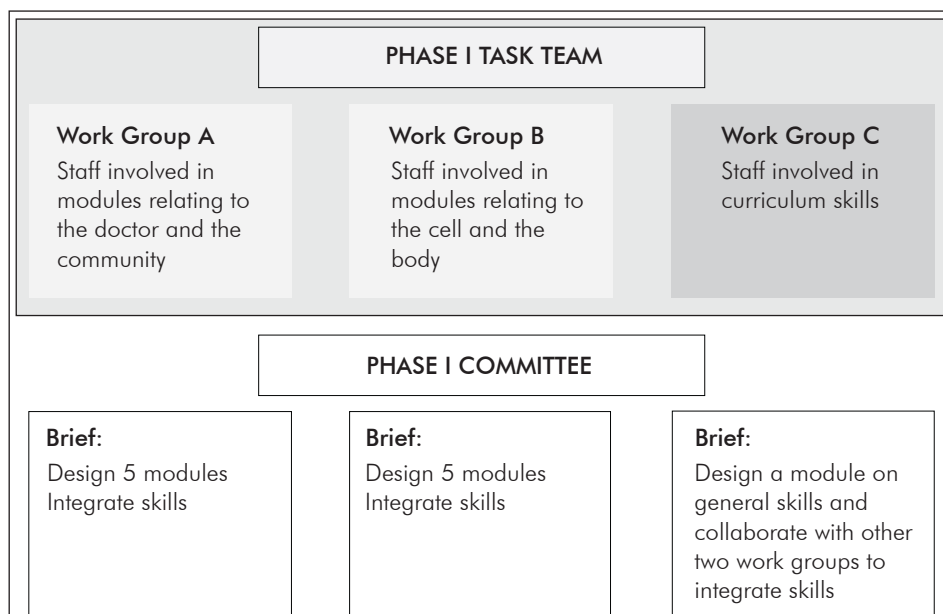


FIGURE 13.1 Committee structure informing the work of the Phase I Committee

During this preparatory period, the Division of Educational Development, Office of the Dean offered several workshops to orient academic staff members to new expectations with regard to the education and training of doctors. Policy directives, discussed at the African Regional Conference on Medical Education that was held in Cape Town in April 1995, and summarised in the form of the *Cape Town Declaration*, served as a point of departure in these early discussions. A Curriculum Review Committee (CRC), chaired by the Dean and consisting of seven senior academic staff members and educationists, spearheaded the curriculum reform. Regular meetings were held, and several planning documents emerged from their discussions. The work of the CRC was informed by contributions from three Phase Committees and various *ad hoc* sub-groups. In addition, a structure established early in 1998 ensured that the work of each Phase Committee was informed and supported by means of input generated by work groups, each of which had to develop a specific aspect of the new curriculum (see Figure 13.1). In the process of collaborative engagement between the various committees and task groups a rich source of documentation, including minutes, reports and correspondence emerged, which formed the backbone of my reflection on the outcomes of our actions.

Reflection on the findings of a study and developing new ways of understanding a problem are major components of action research. However, unless real action flows from the process, the goal of action research, namely to improve existing practice through educational change, cannot be achieved. To ensure that action would be the outcome of this investigation, the following question was used as a point of departure in each round of data analysis and interpretation: On the basis of what we have learned from this slice of reality, what should we do now? The answer to this question, in turn, formed the basis for new, overarching action plans, which were plotted on various rough versions of the action chart, attached to this chapter as Annexure 13A. The template for this chart was borrowed from the work of Reston (s.a., cited in Mills 2000:115-117).

Observation (collection, analysis and interpretation of data)

Data capture, analysis and interpretation went hand in hand in Cycle One. As it is accepted practice in action research that the researcher should not rely on a single source of data, interview, observation or instrument, a mixed approach employing various data-gathering methods and techniques was used to gather information (Mills 2000:49). Sources of data included student feedback, workshop reports, minutes of committee meetings, official curriculum documentation, observational notes made during meetings and workshops, and trying to understand these in relation to inductive ideas taken from the literature. In following the procedure for information gathering, as described by Mills (2000), reconnaissance activities included examining (personal memos, journal entries, official and unofficial documents emerging from the work that was done to give effect to decisions taken by committees and task teams), experiencing (active participation in committee meetings, workshops and other faculty

forums, teaching and assessment activities), and enquiring (asking questions by means of questionnaires and interviews). The purpose of these activities was, firstly, to gain an in-depth understanding of the rationale, from the School's point of view, for the inclusion of general skills into the new curriculum in a particular manner, and secondly, to obtain an overview of how the decisions taken by the School were conceptualised in curriculum materials and perceived by students.

Data interpretation consisted mainly of sharing newly-found insights with colleagues and seeking their criticism with a view to anticipating the implications of decisions taken. One such an insight shared with colleagues at a meeting of the Phase I Task Team on 25 November 1998, was the following:

The powerful influence of assessment on students' learning behaviour should not be underestimated. Assessment of general skills can thus be used to prevent students from regarding skills development as being of minor importance.

A question raised on the same occasion was whether all of the critical outcomes specified in SAQA documentation had to be addressed in the first year of the medical curriculum. Alternatively, the School could identify those skills that were deemed essential for the first year of study and concentrate on them only. The latter option was chosen and put into effect when the module development team compiled the final version of Module MEA112 (see Annexure 13B).

Without my realising, at that stage, that assessment would become a pivotal aspect of the implementation of Module MEA112, my journal entry on 20 January 1999 read as follows:

A possible strategy: 1. Look at expected exit outcomes of curriculum. 2. Identify tasks students have to perform. 3. Pull out selection of topics or tasks related to skills we would like to teach. 4. *Identify vehicle for testing those skills* [emphasis added].

A prime opportunity for receiving critical comment on the preliminary plans for Module MEA112 presented itself when Professor Stewart Petersen from the Leicester Warwick Medical School in the United Kingdom, one of the most prominent consultants in the curriculum review process, came to visit the School of Medicine in March 1999. From my field notes on Professor Petersen's critique, I condensed a few recommendations for consideration by the module development team, including the following, which echoed my journal entry:

Skills should be embedded in assessment activities through the identification of activities in core modules where those skills are prominently needed, followed by the formulation of assessment criteria that will test whether intended skills outcomes have been achieved.

Student views on their experience of Module MEA112 were captured by means of a three-stage process. Two and a half weeks after the commencement of Curriculum 2000, 58 Afrikaans- and 30 English-speaking students completed a semi-structured

questionnaire asking them to comment on what was 'right' and what was 'not so right' in Module MEA112. Disconcertingly, almost one third of the students did not feel comfortable with the assessment process, with special reference to the group project and the oral presentation of its findings. Their views were triangulated by means of a follow-up survey in which they were asked to comment on a summary of their feedback elicited in the first survey. A total of 50 responses indicated that group assignments were unfair and problematic. A few comments indicated that the assessment was perceived to be haphazard and excessive. Further triangulation in the form of a focus group interview with a representative sample of the student target group on 25 July 2000 made it clear that assessment of group performances and products, considered to be one of the critical aspects of Curriculum 2000, was bound to cause a great deal of resistance if left unattended.

REFLECTION AND PROFESSIONAL GROWTH

During the period immediately preceding the inception of Curriculum 2000, the workshops and retreats organised by the Office of the Dean, in collaboration with the Division of Educational Development, taught me how to do the curriculum. I experienced the series of workshops on relevant topics such as outcomes-based education and training, small-group teaching, programme development and writing workbooks as meaningful professional development exercises. Apart from imparting information on the SAQA parameters within which curriculum renewal had to take place, these sessions created opportunities for sharing my ideas on the development of general skills with colleagues. Through critical input from them, I enhanced my own understanding of what it was that Work Group C was supposed to do.

However, at the end of the first year of Curriculum 2000, I was able to say in retrospect that the development team responsible for Module MEA112 had started off with a highly imperfect system, but that we had learned enough to be ready to replace it with something a little less imperfect in 2001. A diary entry on 17 January 2001 bears witness to the resoluteness that was unleashed by the 31% of Afrikaans-speaking students and 21% of English-speaking students who, according to feedback on a question included in a centrally-organised programmatic survey on the overall value of all modules comprising Curriculum 2000, felt that Module MEA112 did not belong in the Learning Programme for Professional Medicine:

17 January 2001 – They do not see our module as an essential part of the learning programme – WE SHOULD CHANGE THAT!

ACTION RESEARCH CYCLE TWO, 2001: DOING DIFFERENTLY HAS EVERYTHING TO DO WITH ASSESSMENT

Trying to do things differently is dangerous ground because one's critics might be quick to say "I knew it would not work – let's go back to old things". However, in Cycle Two of the action research project it became clear that through opting for a reflective rather

than a routine approach to implementing new things, the learning of a small group of committed colleagues indeed contributed to curriculum change.

In contrast to the relatively simple, solid reflective cycle of action research in Cycle One, the action research mode adopted in the second year of Curriculum 2000 consisted of a series of small spirals, reminiscent of Stringer's interacting spiral that includes looking, thinking and acting as a continually recycling set of activities (Stringer 1996, cited in Mills 2000). Action steps and observation of the effect thereof were not carried out in a linear fashion. The capturing and analysis of data, which formed part of the iterative process, were rather kept on track by regular reflection on findings with a view to using these results to inform ongoing data-collection efforts.

Re-defining the problem

One of the key understandings of Cycle One was that the model of skills development the School of Medicine had in place was suffering from various shortcomings, the most serious being the assessment strategy which left students feeling exposed and 'unsafe'. A more creative way of assessing critical outcomes had to be devised.

Two key concerns guided actions and observations in Cycle Two: (1) how to convince students to accept new forms of assessment and (2) how to negotiate collaboration with subject experts with a view to providing students with the opportunity to apply general skills in authentic disciplinary contexts. Since it had been revealed through questionnaire feedback that a substantial number of students still had a reproductive conception of learning, it was anticipated, in following Gibbs (1995), that they would be resistant to alternative approaches such as sharing the responsibility of assessment with lecturers and other authority figures. As far as developing a shared understanding with academic staff was concerned, the prospects were bleak. A discussion with Phase I module leaders on 2 November 2000 led to the following observational notes:

The use of unconventional forms of assessment to ascertain whether skills and attitudes had been acquired was not even considered by most of the individuals attending the meeting; a certain degree of awareness exists regarding the need for creating authentic disciplinary environments for demonstrating and recording achievement of critical outcomes, but time constraints and lack of knowledge on alternative forms of assessment compel them to cling to conventional forms of assessment.

Action steps to empower staff and students

To promote unconventional assessment practices among students, the MEA112 module development team started the academic year in 2001 by ensuring that they were well informed on what to expect from the new forms of assessment that we planned to use. In keeping with our intentions to establish among students the idea of collaboration

rather than competition, and to introduce them to the idea that assessment should no longer be seen as the ‘business of lecturers’ only, the 2001 module guide met the following expectations, enunciated in a journal entry on 23 October 2000 already when the learning material for 2001 had to be finalised:

Our document on assessment addresses all the flaws identified in 2000 – it provides details on how assessment in MEA112 will be approached; students will know beforehand that assessment will be based on individual and group performance; it explains the rationale behind the different products that will be assessed; a variety of products are included; it explains how the grading of oral and written formats of the project will include components of self-assessment, peer assessment, group assessment; the weight each product will carry towards the module mark is indicated; dates and venues for delivery are indicated.

To empower staff to embed and assess general skills in subject learning content, the MEA112 module team started small, in synergy with the leader of Module MED113 on concepts of health and disease – the only person who had demonstrated a willingness to make use of innovative assessment at the 2 November meeting. Consistent with the commitment made by the School of Medicine to address the needs of the community, Module MED113 deals with the protection and promotion of health, prevention of disease and the prolonging of life through organised efforts of society. One of the major intended outcomes of the module is that students should acquire skills to educate individuals and community groups on the principles and processes of disease prevention and health promotion. The following critical outcomes are implicitly included in this subject-related outcome: the ability to solve problems against the background of social, political and economic realities; to communicate and interact with community members and organisations; and to function effectively within an assigned group.

Drawing on constructivist learning theories claiming that generic skills development is encouraged in authentic real-world environments (Biggs 1999), the leader of Module MED113 collaborated with my office in organising a health Expo. Emphasis was placed on authentic content, social negotiation, reflexivity and tasks demanding the active involvement of students. A conceptual framework (see Table 13.1), adapted from Nightingale, TeWiata, Toohey, Ryan, Hughes and Magin (1996), served to combine our efforts. One of the main features of the learning experience was that students would be involved in assessing the posters, brochures, stalls, and the oral presentations. The idea behind involving students as co-assessors was to give them the message that they could be trusted with the responsibility of assessing their peers’ work – an important skill needed for professional competence in their future working lives.

TABLE 13.1 Conceptual framework used for structuring authentic assessment in Modules MED113 and MEA112

Key questions	Intended outcomes / planned actions
What skills do we want to see in our students at the end of this learning experience?	<ul style="list-style-type: none"> ▪ Critical thinking ▪ Problem solving ▪ Communication ▪ Interaction ▪ Group functioning
What teaching methods are most appropriate to develop these skills?	<ul style="list-style-type: none"> ▪ Preparatory lecture on health promotion and education ▪ Preparatory lecture on principles of communication by means of posters ▪ Clinical learning opportunities in schools, health care agencies and organisations
What kinds of tasks will allow students to demonstrate these skills?	<ul style="list-style-type: none"> ▪ Students to work in groups ▪ Community-based workshops to do a needs analysis at COMMTECH High School and several health care organisations ▪ Project assignment requiring students to communicate the information they have gathered in the form of poster and/or brochure presentations
What kind of authentic assessment situation can be created to make these tasks look like real tasks of the community health promotion?	<ul style="list-style-type: none"> ▪ Organise a health Expo in the Faculty, open to the public ▪ Invite health care workers representing community organisations and schools that students were exposed to in the execution of their projects, to view the formal presentations and participate in the assessment thereof ▪ Organise a session where each group would present a PowerPoint presentation of the process and outcome of their project
What standard of performance should be required?	<ul style="list-style-type: none"> ▪ Negotiate assessment criteria with students

Reflective thoughts upon observing the outcome of the Expo poster project

Feedback on the outcome of the Expo was obtained from a group consisting of 30 health workers and 30 high school pupils, representing the community of Mangaung. The comment of the whole first-year class of 134 students, working in 17 groups, and a panel of six academic staff members was also sought. Data were captured by means of a variety of instruments, including a marking scale, a criteria checklist, a semi-structured questionnaire and an open-ended half-sheet response form.

Responses from all three the target groups were mostly positive. Only the students' comments are singled out for discussion here since the satisfaction of students is regarded as of utmost importance for judging curricular quality. Seemingly, the majority of students derived benefit from the exercise, as is evident from comments such as the following:

Gained added responsibility by assessing my fellow students.

Criteria used [were] the best thing ever – [they] embraced the whole presentation and made it easy to evaluate.

On the other hand, students' lack of experience and the fact that some of them had not made a paradigm shift towards active learning became clear:

Students could have got lower marks because for one group 'excellent' meant 90 per cent, and for another group it meant 80 per cent.

It was a waste of time – we could have studied rather.

Although student feedback should be regarded with reservation, their suggestions for improvement should not be ignored. Therefore the MEA112 team realised that the fairness of the exercise could have been increased by paying attention to the following aspects, as highlighted by the students to be problematic: unequal resources (money/information/support); dissimilarity of topics identified for investigation; untimely negotiation of performance criteria; misunderstanding about criteria and allocation of marks; unethical behaviour of some groups (collusion and retribution); unequal racial composition of community representatives (only black) and panel of staff assessors (predominantly white).

Reflection on these limitations confirmed what Professor Lewis Elton of the University College London had to say at a workshop on quality enhancement on 13 June 2001, namely that one should first consider doing better things before one starts doing things better; that one can do better, only after having learned to do differently. Looking back on the Expo learning experience as one of the 'better' things that were done in Cycle Two, one of the most important lessons that I learned was that consistency of measurement need not be compromised in an authentic context. At the end of the Expo project I felt confident that, apart from the fact that the negotiation of criteria took place at a rather late stage, the assessment design and procedures we had in place did ensure fair assessment to a certain extent: performance criteria and weighting were negotiated with students; students were briefed on how to use the assessment sheet; students had to reach consensus within their groups on the marks they allocated to peers' work to prevent collusion and retribution; students' judgements were used summatively, but carried a weight of 33% only. Furthermore, I found it reassuring to know that students do have the ability to distinguish between work of good and poor quality. In the first instance, it was quite interesting that the list of criteria that students suggested was almost identical to the one that module leaders had compiled in preparation for the negotiation session. To me this was an indication that students had a well-developed sense of what a quality product in that specific context entailed.

Reflecting on the Expo further emphasised the value of embedded skills development and the value of collaboration among academic staff. On the one hand, the MED113 project provided the MEA112 module development team with an authentic context for the assessment of students' communication skills. On the other hand, sheer logistics and the extra workload brought about by the authentic assessment exercise made it impossible for the MED113 module leader to conduct the whole project in isolation. The synergy and cross-fertilisation of ideas that were achieved by working together

pressed home the idea that a student-centred curriculum ‘belongs’ to a school and not to individuals within it.

ACTION RESEARCH CYCLE THREE, 2002: DOING DIFFERENT THINGS BETTER

Improvement of practice in Cycle Three implied more of what was done differently in 2001, namely more involvement of students in the actual process of assessment. The starting point was the dichotomy of students’ positive experience of real-world conditions in the MED113 Expo project, as opposed to their feelings of insecurity related to the unconventionality of having to act as co-assessors of their peers’ work.

Situating the special concern about students as co-assessors

Contemporary life in South Africa, characterised by complex social conditions, places a high premium on the ability of citizens to relate well to others. Add to this the fact that teamwork is the key word in primary health care and hospitals, and it becomes clear why the MEA112 module development team gave prominence to improving the quality of the Expo project. It was reasoned that if students could be ‘conscientised’ on their shared responsibility for assessing group products and processes, we would be contributing to preparing them for the world of work. In addition, if they could be absolutely clear about what is expected from them as co-assessors, they might start to feel ‘safe’ with innovative assessment, including peer assessment.

Steps taken to enhance the project-based poster presentations

The MED113 project-based Expo presentations were repeated in April 2002. Table 13.2 gives a summarised view of how the students’ concerns were addressed.

TABLE 13.2 Problems identified by students in the 2001 MED113 Expo project and actions taken to address them in 2002

Problem	Actions taken to rectify the situation
Negotiation of assessment criteria when students had already finished posters	<ul style="list-style-type: none"> ▪ Students were involved in the establishment of criteria and performance indicators when they started working on posters ▪ Students’ ideas were assembled by means of a structured process, refined and triangulated with them
Misunderstanding about the allocation of marks	<ul style="list-style-type: none"> ▪ Assessment sheet was designed to allow separate assessment of posters, brochures and stalls ▪ Criteria were broken down into performance indicators
Friendship marking	<p>A more sophisticated method of scoring and weighting was designed:</p> <ul style="list-style-type: none"> ▪ The use of different assessment sheets ensured that only subject experts assessed the factual correctness of the posters ▪ Students’ assessments carried a weight of only 5%

Problem	Actions taken to rectify the situation
Dissimilarity of topics and resources	The target groups of posters aimed at informing the public on health topics and those aimed at giving information on the services rendered by non-governmental organisations were clearly specified
Unequal racial composition of community representatives and panel of staff assessors	<ul style="list-style-type: none"> ▪ Two schools, Navalsig (mixed racial student body) and CommTech (black, English-speaking student body), were invited to attend the exhibition ▪ Three black staff members were included on the staff panel

Observing the outcome of the Expo presentations

Observation in Cycle Three consisted mainly of asking questions. Tangible evidence of improved satisfaction among students was sought by asking them, first, to express their individual feelings about having a say in the criteria and weights that would apply in the assessment of the posters. These comments were captured in the form of a written 'short comment' before the actual presentations. A whole array of words indicating positive feelings were recorded, including: 'motivated', 'appreciated', 'honoured', 'empowered' and 'part of the system'.

A second round of commentary was gathered immediately after the Expo by means of a semi-structured questionnaire. Overall, the comments were very supportive of the modifications that were made to improve the quality of their participation in the assessment process. Typical comments were:

It was clear that our suggestions for criteria were used.

Seeing that we had decided what was important, we were more motivated to do good work.

Much confusion was eliminated; we knew exactly what was expected.

The involvement of students in the assessment exercise similarly met with overwhelming approval by the panel of staff assessors. Confirmation that they were not merely being subjectively positive was found in the words of a member of the accrediting panel of the South African Health Professions Council who was visiting the School at the time of the Expo:

After only three months in the new curriculum, first-year students seem to be able to do things that one would normally expect from post-graduate students.

Something that bothered the MEA112 team, however, was the fact that staff members' suggestions for overall improvement focused solely on logistics (Table 13.3).

TABLE 13.3 Reflective comments on the MED113 poster presentations made by the panel of staff assessors

Aspect commented on	Response
Aspect of the assessment process that made the staff feel extremely positive	<ul style="list-style-type: none"> ▪ The effort, insight, creativity and enthusiasm of the students
Aspects of the assessment procedure they would like to change	<ul style="list-style-type: none"> ▪ More time should be allowed for assessment
Complaints/objections raised by students that they know of	<ul style="list-style-type: none"> ▪ Cursory style of assessment used by staff ▪ Disappointment of not having won
Suggestions on improvement of assessment instrument	<ul style="list-style-type: none"> ▪ Use a simple, more holistic tool ▪ Use fewer criteria ▪ Exchange detailed rubrics for simple descriptive categories such as 'Excellent', 'Good', 'Poor'
Suggestions for overall improvement of the poster presentation event	<ul style="list-style-type: none"> ▪ Improve logistics: more time, more space, another venue, a different arrangement of stalls

Not one of the six respondents who returned completed questionnaires, representing a response rate of 67%, referred to fundamental issues such as the aims and methods of the assessment or the possibility that marks might be skewed because of the inexperience of student assessors. This state of affairs signalled that academic staff were not sufficiently sensitised to the issues involved in authentic assessment to the point of being critical, which works against innovation. The issue was earmarked as something that had to be addressed in future staff development sessions.

RETROSPECTION

Action researchers are sometimes accused of congratulatory self-indulgence. For this reason, showing that one's research has truth value to the point that it can stand up to public scrutiny, is an important aspect of taking stock of an action research journey (McNiff & Whitehead 2006). Table 13.4 shows how trustworthiness was ensured in the research reported in this chapter.

TABLE 13.4 Adapted version of Guba’s criteria for ensuring trustworthiness in qualitative research (Mills 2007)

Criteria of trustworthiness upheld by the researcher	Strategies and methods followed to ensure that criteria of trustworthiness were met
Credibility	<ul style="list-style-type: none"> ▪ Observed students’ perceptions of Module MEA112 persistently over a period of three years ▪ Interacted with members of the development team of Module MEA112, lecturers teaching in Phase I of Curriculum 2000, as well as with significant others (phase chairpersons, semester chairpersons, managers, moderator, supervisor and study leaders) ▪ Practised triangulation of assessors, sources of data (students, lecturers, managers), methods (questionnaires, interviews, observations), and different perspectives to interpret data (statistical analysis within a qualitative action research mode of inquiry) ▪ Collected a variety of data items (self-reports, half-sheet responses, questionnaire responses, assessment results) ▪ Corroborated findings, summaries and reports with research participants before sharing information on broader forums such as meetings or workshops
Transferability	<ul style="list-style-type: none"> ▪ Collected detailed descriptive data and compiled detailed descriptions of the context to facilitate comparison with other contexts
Dependability	<ul style="list-style-type: none"> ▪ Compensated for a possible weakness in one data-gathering method by using more than one method, e.g. questionnaires and focus group interviews
Confirmability	<ul style="list-style-type: none"> ▪ Practised triangulation by confirming interpretations with those concerned ▪ Recorded own reflections on what had happened in a particular situation in order to reveal underlying assumptions or biases that led to a specific interpretation or caused the researcher to present findings in a particular way

CONCLUSION

In a context where the implementation of innovative approaches to teaching and learning rests heavily on practitioners, action research is increasingly being recognised as a useful framework within which to develop the competencies and strategies required for tackling complex tasks in the uncertain educational landscape of rapid change. One of the main reasons why this kind of research is gaining ground is that it allows different role players to participate collaboratively in enhancing the delivery of the curriculum to ensure that ‘doing differently’ does not mean ‘doing worse’ (McNiff & Whitehead 2009).

The purpose of educational action research, however, is not to replicate the procedure in other similar situations and communities, but to generate full descriptive information defining in detail a situation of curriculum change. Through this chapter I hope to have enriched the thinking of other educators by sharing how I, in collaboration with others, have used action research to probe ideas about the assessment of critical

outcomes in practice and how we learned from the consequences of our actions. Without fear of contradiction I can say that in the process, my colleagues, our students and I all developed a better understanding of the rationale for changing the medical curriculum. We became owners of the initial plans for change and by sharing our concerns we learned to live with the complexity of real experience when a curriculum needs to change.

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Aspects of the study related to the assessment of critical outcomes have also been disseminated in the form of the following journal articles:

- Beylefeld AA. 2005. The challenge of creating knowledge through action research. *South African Journal of Higher Education*, 19, Special Issue:1321-1333.
- Beylefeld AA, Bitzer EM & Hay HR. 2007. Action research: A wonderfully uncomfortable mode of creating knowledge. *Acta Academica*, 39(1):146-175.
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ANNEXURE 13A
STEPS FOR TAKING ACTION

Research question directing action in successive cycle	Action to be taken	Person(s) responsible for implementing the action	Other role-players who need to be consulted and/or informed	Person(s) responsible for monitoring action / collecting data	Time frame for implementing the action	Resources that will be needed to implement the action
ROUND 1						
<ul style="list-style-type: none"> What should be done, within the parameters of the original policy decision to design and implement an 'orientation programme' to address SAGA requirements for general skills development? 	<ul style="list-style-type: none"> Develop a module, including the critical cross-field outcomes listed in SAGA documentation 	<ul style="list-style-type: none"> Development team of Module MEA112 	<ul style="list-style-type: none"> Members of Work Groups A and B Phase 1 Committee 	<ul style="list-style-type: none"> Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team 	<ul style="list-style-type: none"> Until November 1999, when the Phase guide and workbooks should be ready for printing 	<ul style="list-style-type: none"> Funding Technical assistance Secretarial assistance
ROUND 2						
<ul style="list-style-type: none"> What should be done, now that we know that the students think that Module MEA112 is not medically oriented enough and is taking up too much of the time they could spend on 'studying'? 	<ul style="list-style-type: none"> Integrate skills development sessions with learning content in core modules. Establish close collaboration with subject experts to create authentic learning experiences Design and implement alternative forms of assessment 	<ul style="list-style-type: none"> Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team 	<ul style="list-style-type: none"> Phase Chair Members of MB ChB I and Module Leaders Committee Curriculum Committee 	<ul style="list-style-type: none"> Leader (Adri Beylefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team Leaders of modules with whom joint working procedures are negotiated 	<ul style="list-style-type: none"> Until November 2001, when updated Phase guide and workbooks should be ready for printing 	<ul style="list-style-type: none"> Funding Technical assistance Secretarial assistance

**ANNEXURE 13A
STEPS FOR TAKING ACTION**

Research question directing action in successive cycle	Action to be taken	Person(s) responsible for implementing the action	Other role-players who need to be consulted and/or informed	Person(s) responsible for monitoring action / collecting data	Time frame for implementing the action	Resources that will be needed to implement the action
ROUND 3						
<ul style="list-style-type: none"> What should be done now that we have a better understanding of the problems related to integration and alternative forms of assessment (e.g. over-assessment, friendship marking, lack of formative feedback)? 	<ul style="list-style-type: none"> Re-establish links with core modules where joint assessment activities are well accepted Refine portfolio system Refine standards, criteria and rubrics for assessment of performance tasks 	<ul style="list-style-type: none"> Leader (Adri Beyliefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team 	<ul style="list-style-type: none"> Programme Director, New Medical Curriculum 2000 Phase Chair Semester I Chair Members of MB ChB I and module leaders Committee Curriculum Committee 	<ul style="list-style-type: none"> Leader (Adri Beyliefeld) and co-leader (Mpho Jama) of Module MEA112, in collaboration with other members of module development team Leaders of modules with whom joint working procedures are negotiated 	<ul style="list-style-type: none"> Until November 2002, when updated Phase guide and workbooks should be ready for printing 	<ul style="list-style-type: none"> Funding Technical assistance Secretarial assistance

Adapted from Reston (1994), cited in Mills (2000).

ANNEXURE 13B

MODULE MEA112: GENERAL SKILLS

On the completion of the design of Module MEA112, the module had the following features:

General approach and structure

The module comprised 10 eight-hour sessions offered by a fairly large number of staff members, including academics, administrative staff and people from the public sector. It involved 55 hours of contact time and 25 hours of directed learning over a two-week period. The content of these sessions was delivered by means of various teaching and learning methods such as live lectures, video-taped presentations, group work, hands-on sessions, computer-assisted learning and 'do-it-yourself' assignments (directed learning).

Content

The aim of the module was to:

- familiarise students with the physical environment and administrative procedures of the Faculty of Health Sciences;
- serve as an introduction to the way in which students are expected to function within the new curriculum;
- develop and enhance the general skills and competencies demanded by a resource-based learning approach.

The content of the module covered the following themes:

- Physical arrangement, administration and management of the Faculty of Health Sciences
- Medical education in the Faculty of Health Sciences
- Intercultural etiquette and non-verbal interaction
- Group approach
- Self-regulation: personal, financial and time management
- Discovering computers
- Subject-specific communication
- Introduction to information technology and research
- Finding and evaluating information
- Data-base searching and bibliographic reference technique
- Project presentation

Assessment of the achievement of outcomes was based on class attendance, a group project assessed for content, structure and referencing technique, and an oral presentation assessed by a panel of academic staff members as well as by the students.

14

CREATING A LIVING CURRICULUM

AN INSIDER APPROACH TO CURRICULUM DEVELOPMENT

Lesley Wood

INTRODUCTION

In this chapter, I first explain my concerns regarding current practices of curriculum development, based on my own experience, before offering a discussion on how curriculum development might look if a values-based practitioner self-inquiry approach were to be adopted. Through an explication of this genre of action research, I show how the iterative learning of the curriculum makers, through a process of scholarly self-inquiry, is used to hold themselves accountable for the improvement of both curriculum content and pedagogical practice. I introduce the idea of how the creation of personalised living theories, based on collectively agreed upon values, helps to minimise the gap between theory and practice. The notion of values as living standards of judgment is elucidated, demonstrating how academics can utilise them to ensure that explicit epistemological and ontological principles are embodied in curriculum design, implementation and evaluation. Examples from a teacher education context shows how this approach to curriculum development and inquiry can be an effective way of transforming the teacher education curriculum to make it more relevant to the social, economic and political contexts in which teachers have to live and work.

MY CONCERN WITH CURRENT APPROACHES TO CURRICULUM DEVELOPMENT

To illustrate my concern with how I have experienced curriculum development at my institution, I present a short extract from a recent meeting of lecturers from a programme that was undergoing re-curriculation:

DOS:⁸³ So, what modules do we want in this programme?

Lecturer A: I think we definitely need something on how to do assessment in ways that are more appropriate to learner-centred teaching ...

Lecturer B: Don't we have that already in the programme?

⁸³ DOS – Director of School.

Lecturer A: I don't think so ...

Lecturer C: You know, what would really help me is to know what others are doing, what is in the modules you teach ...

During the course of the re-curriculation meetings, this and similar conversations led me to realise that, prior to this attempt, curriculum had tended to be developed without sufficient collaboration between the people who actually implement it. My experience of earlier re-curriculation initiatives left me with the impression that there was a lack of cohesion across modules, the choice of modules often occurring as a result of who had the most influence or what expertise was available. Although basic programme outcomes were agreed on in a consultative manner, the actual design of individual modules and determination of module-specific outcomes tended to be left to 'module coordinators', who worked in isolation to produce a module the content of which only they were familiar with. This would then be sent to an external moderator who would not have an overview of the whole programme, and could only comment on the academic merit of this specific module in terms of outcomes, content, material and assessment.

My specific interest lies in the integration of HIV and AIDS education into the curriculum. I am aware that curriculum development needs to be a co-operative, holistic, participative and systematic process, otherwise the final product runs the risk of being fragmented, disjointed and contradictory, containing potential omissions and duplications. Curriculum is viewed as both process and product (Dewey 1938; Smith 2000), and so the approach to curriculum development will determine how relevant, appropriate and effective the final product is. If it is accepted that the purpose of a teacher education curriculum is to develop teachers who can adapt their teaching to specific contexts to ensure that it is inclusive, learner-centred and culturally relevant, then we need to ensure that these values are embodied in our own practices. Curriculum is a "complex relational dynamic that is shaped by multiple social and cultural contexts" (Nason & Whitty 2007:271) and therefore a critical awareness of such contexts must underpin the development process. The discussion now turns to specific aspects of curriculum development and inquiry that foreground my concerns.

THEORETICAL PARADIGM

The starting point for curriculum development is theory (Schiro 2008) – the philosophical paradigm influences the choice of outcomes, the content, the preferred pedagogy, what is emphasised, and what is omitted. Since most higher education institutions in South Africa are in a process of transformation, it is important for curricula to be grounded in critical, emancipatory paradigms that promote social change and uphold the values on which the South African constitution is based. The theories that shaped curriculum development in the past may no longer be relevant in today's world, where teachers are called upon to do more than teach subject content (Visser 2005). Our society is characterised by social injustices – lack of basic amenities, extreme poverty,

gender inequalities – and the resultant prevalence of HIV and AIDS in communities, that make it very difficult for teachers to implement the knowledge they gained during their studies, since most of the teaching strategies and theories they learnt were imported from contexts where such barriers to teaching and learning are minimal. Knowledge does not equal change in societies where many people are prevented from implementing change due to restrictive and punitive social structures and norms (Baxen & Bredlid 2009).

The paradigm underpinning any curriculum for teacher development in today's society should guide the choice of pedagogy and curriculum content to equip them to critique the social injustices prevalent in the status quo and to develop the skills and confidence to overcome environmental challenges that pose threats to teaching and learning. It therefore has to be based on a critical and emancipatory ontology, instilling in teachers a desire to contribute to social and educational improvement (Somekh & Zeichner 2010). However, in my experience, the theoretical base for curriculum development is not always clear to those implementing the curriculum, although it may have been to the original designers. This is particularly problematic when tutors or part-time lecturers are used to teach without having been part of the curriculum conversation, or when lecturers are switched due to workload commitments. Unless lecturers are mindful of the theoretical paradigm underpinning what they are teaching and how they should be teaching it, they cannot effectively evaluate their own teaching to determine if it is still in line with the original intentions of the curriculum.

RELEVANCE OF CURRICULUM TO THE CURRENT SOCIAL REALITY

I have been involved in determining the extent to which our Faculty of Education addresses HIV and AIDS in the curriculum for pre- and in-service teachers. This allowed me the opportunity to develop an overview of the kind of things we were preparing teachers to do – I say *do*, because the emphasis seems to be on exactly that, with little attention paid to what teachers should be learning to *be*. This tends to result in a technicist, pragmatic approach to teaching, which may not be relevant to the diverse and socially challenged contexts in which the majority of our teachers live and work. I suspect that our current curricula create knowledge reproducers rather than professionals who can critically assess their own contexts and adapt the curricula to reach the outcomes in a more meaningful, inclusive and culturally relevant manner. We are developing teachers to work in contexts that are ideal and do not exist for the majority – perhaps this is one reason why so many of our teachers become disillusioned and lose interest in teaching (Olivier & Wood 2007; Pretorius & De Villiers 2009).

Pedagogy

A learner-centred pedagogy, where students are engaged, participative and can actively construct meaning, is accepted as the ideal basis for teaching and learning within the context of a transformed curriculum (Baxen, Wood & Austin 2010). However, it is very easy for teachers and teacher educators to fall back into the model of teacher-

driven learning when they are faced with large classes, time constraints and many other barriers to effective learning that exist in our educational institutions (Walton, Nel, Hugo & Muller 2009). Drawing from my experience with HIV education, a critical pedagogical approach assumes that teachers have engaged both in critical self-reflection, and how they could engage learners to do the same. The ultimate aim of such reflection is to move them to take personal responsibility for changing their own behaviour and thus contributing to a change in social norms. As James-Traore, Finger, Rulland and Savariaud (2004:2) argue:

... effective training first has to have an impact on the teachers themselves, helping them examine their own attitudes towards sexuality and behaviours regarding HIV prevention, understand the content that they are teaching, learn participatory teaching skills, and gain confidence to discuss sensitive and controversial topics.

However, research indicates that teaching still tends to focus on the transmission of facts and information *about* the virus, rather than on engaging students to think about how the effects of the pandemic may play out in specific social, gender, economic and political contexts and how this might affect the lives of their learners (Baxen *et al* 2010; McLaren 2003).

Based on the above concerns, I would argue that curriculum development needs to be a true team effort, where everyone involved in the implementation is also involved in the design and evaluation so that coherence across the programme is promoted. A community of practitioners should follow a systematic process of inquiry to ensure that curriculum development is a rigorous, scholarly and well-researched process. I agree with Stenhouse (1985) that a curriculum should be viewed as a set of tentative statements that can be tried out, reflected on and changed, so that curriculum development becomes a means of continual learning. I am proposing that a values-based, self-reflective action research approach (McNiff & Whitehead 2006) is an effective way to address the concerns outlined above and the key question that I aim to address in this chapter is:

How can curriculum development and inquiry be conducted so that it remains dynamic, flexible, relevant and appropriate to the South African context?

ACTION RESEARCH: AN INSIDER PERSPECTIVE

Action research comes in many forms and is called various things by different researchers (Cohen, Manion & Morrison 2007). However, irrespective of the name or specific genre of action research, it is generally agreed that it is based on specific values and principles (Carter 2002; Stringer 2007; Zuber-Skerrit 1996). Action research is a methodology, but it is also a paradigm (Kember 2002; Zuber-Skerrit 1996) that gives rise to dynamic, personalised and life-changing theories that operationalise the values of inclusion, people-centredness, democracy, social justice, compassion and respect. Action research is critical, evaluative, participatory and collaborative; it holds practitioners to be accountable and self-evaluative and it focuses on lifelong learning

(McNiff & Whitehead 2006). It is not stuck in one particular ideology, but as befits a critical, emancipatory paradigm, it is flexible and open to change. Rinaldo (2005) notes that, although action research has made its way into many faculties of education worldwide, it usually has been in the guise of staff development to improve teaching, rather than being seen as bona fide research or having relevance for other practices, such as curriculum development.

Self-study action research has universal human wellbeing as its value base and communicative action (Habermas 1976) as a method of realising it (McNiff 2005:1). It provides an ideal platform to realise transformative values while simultaneously generating contextually relevant theory – educators, and education, can thus be transformed through the generation of their own living theories (Whitehead 1989). Living educational theory, a notion first used by Whitehead (1989), is being adopted by academics and practitioners in South Africa as a feasible way of engaging in teaching and research that is truly transformational (Wood, Morar & Mostert 2007). I would argue that living theory is also an ideal notion to guide curriculum development, which in any case is informed by research and operationalised in teaching.

In this genre of action research, the role of practitioner as curriculum-maker is emphasised since any improvement in curriculum requires a commitment to self-improvement on the part of curriculum makers as they live out the values that underpin curriculum transformation (McNiff & Whitehead 2006). The hard borders that often exist between design and delivery of curriculum are blurred, as the academic is operating simultaneously as a researcher, curriculum designer, practitioner and evaluator while following an iterative and systematic process that leads to continual improvement in curriculum content and process.

The main purpose of this genre of action research is to enhance practitioner learning, leading to a better understanding of social and educational situations, so that action to improve the situation will be more likely to be effective and relevant. To do this, action research collects data from a “whole range of information, based on the experience of those involved” (Reason & Torbert 2001:9), encompassing inquiry into values and purposes, perceptions and ontology, as well as practical inquiry into teaching and learning practices. Through critical interrogation of purpose, values and behaviour, academics can create their own living theories (Whitehead 1989) to improve the quality of their educational practices. The curriculum inquiry process does not remain an impersonal reflection – it becomes an emotional and intellectual process carried out in the midst of everyday practice. Values have a strong emotive component and this emotion contributes to the passion that propels effective action research. The commitment to self-transformation becomes the driving force behind everyday practice, and in this way transformation is attained from within (Wood 2010). How we understand ourselves in relation to one another and to our environment (our ontology) determines how we interact with others. The ontological value underlying action research is that, although we see ourselves as individuals, we recognise that

we live with others in a shared environment. However, rather than trying to change or improve others, action research focuses on self-transformation in an attempt to work together for sustained development, on both a personal and collective level (McNiff & Whitehead 2006).

As a methodology, action research follows a systematic cycle of review, plan, act and evaluate (Elliot 1991; McNiff & Whitehead 2006; Zubert-Skerrit 1996). The research focus is on an insider approach, as practitioners systematically implement the cycle to gain better insight into what they are doing and why they are doing it, and how they could improve (McNiff & Whitehead 2006). Improvements discovered in this way, as opposed to those that have been formulated by 'outsiders' who are not part of this community of practice and who may not experience the same problems and issues on an ongoing basis, are more likely to be implemented and contribute to sustained change. In my experience, if curriculum changes are imposed from the outside and do not fully involve the participants in defining the problem, setting goals and learning how to take action to reach them, how to evaluate progress and to change their practices according to what they are learning, then any change is likely to remain fleeting. Once the external 'trainers' or evaluators leave, academics are likely to revert to 'old ways' of doing things because they have not internalised the change.

Following an action research process, each member of this community of practice involved in curriculum development and implementation would identify their own educational values, agreed on in accordance with the theoretical paradigm adopted by the team. These values (including, but not limited to inclusion, people-centredness, democracy, social justice, compassion and respect) are then used as guiding principles to which they hold themselves accountable, and against which they can evaluate curriculum content and pedagogical practices. Yet they are not working in isolation, since collaboration is vital to the success of this process. Kemmis and McTaggart (2000:580) explain this individual/group relationship in the following way:

The approach is only action research when it is collaborative, though it is important to realise that the action research of the group is achieved through the critically examined action of individual group members.

Validation of their work and learning is provided by other members of the community of practice to whom they regularly submit their accounts of their own learning, stemming from the cycles of critical reflection and action. These 'critical friends' offer constructive and critical feedback, legitimising changes and improvements in the curriculum. Since all members of the programme team are involved in this process, and actively participate in it themselves, all academics are aware of exactly what outcomes the others have included in their respective modules, why they have included them and what pedagogical practices have been chosen to teach and assess them. Programme coherence is thereby improved, and the curriculum is collectively monitored to ensure that content and practices adhere to the original ontological and epistemological values on which it was based. An added outcome of such a process is usually an increase

in motivation, enthusiasm, involvement and collaboration among programme team members as space is created for co-operative learning (Conolly 2010; Wood 2009). Collaborative climates are much more likely to promote excellence in curriculum design and implementation and professional development of the practitioners.

ACTION RESEARCH AND CURRICULUM DEVELOPMENT: AN EXAMPLE FROM HIV EDUCATION

This section explains in detail the process of curriculum inquiry according to an action research (AR) approach. I explain how I have come to learn that an AR approach can help to reduce my concerns regarding curriculum development and implementation by detailing how epistemological, educational and ontological values can be used to guide practitioners in curriculum design, implementation and evaluation. Action research is based on the belief that transformation of social and educational constructs calls for a commitment to working with diverse perspectives and multiple voices (Reason & Torbert 2001:6) to create a curriculum that is suitable for a specific context in a specific time.

I am currently engaged in a research project that explores how an AR approach can be used to research, develop and evaluate best practices for the transformation of the curricula of pre-service teacher education programmes so that they are relevant and responsive to the realities of teaching in the age of AIDS. Although the project is still in its early stages, colleagues working together on this endeavour will follow the process suggested by McNiff and Whitehead (2006), and attempt to find answers to the following questions: What is our concern? Why are we concerned? What can we do to improve the situation? How will we know when we have improved the situation? What have we learnt from our intervention? What are the implications for our future curriculum development and implementation?

What is our concern and why are we concerned?

According to research, the focus in most training programmes offered to teachers seems to have been more on the bio-medical approach to HIV prevention and education, with little attention paid to the development of the teachers' ontological and epistemological values and beliefs around HIV prevention and care (Badcock Walters, Kelly & Görgens 2004; Campbell 2003). The emphasis has been on how to 'change' the learners to lessen the risk of infection, and not on how to adapt teacher practices in order to best educate, support and care for learners who are living in societies affected by HIV and AIDS (Wood 2010). Since South African youth still demonstrate high rates of HIV infection, even though they are knowledgeable about the transmission and prevention of HIV (Campbell & MacPhail 2002), it is obvious that teachers will have to address more than knowledge alone in their prevention programmes. The purpose of the study was therefore to explore ways that HIV education could be included in teacher education programmes to prepare teachers to live and work in contexts characterised by the effects of the pandemic.

The first step in the study, following an action research approach, was to gather data about the existing situation in our specific context (McNiff & Whitehead 2006), as academics engaged in exploring ways that HIV and AIDS education could be integrated into the curriculum. Findings from qualitative, individual interviews conducted with teacher educators in the faculty (11 in total) highlighted some serious concerns about the curriculum development and implementation process, which are discussed below.

Lack of cohesion across programme

There were indications that lecturers on specific programmes had little idea what other modules in the programme addressed HIV and AIDS, as indicated by the quotation below:

I think, look I don't really, as I say, I don't for instance know ... Where I sit, I coordinate this module, I don't know in which other modules it is being presented at which years, so I think what we all need to do is to sit first ...

Another comment was, "It would be really nice to find out from the others how they actually integrate it." This underlines the point that curriculum development may remain an isolated process, where each module coordinator changes (or does not change) his or her module from year to year, without knowing what changes others are making and checking to see if the changes are in line with the theoretical paradigm informing the curriculum; if there are changes that would lead to duplication or omission of important aspects of the curriculum content and outcomes; and if these changes are in the best interests of curriculum outcomes and student learning, or if they are perhaps done in a bid to simplify the teaching and assessment process.

Improvement and development is not ongoing

Curriculum development appears to be regarded as a one-off process by many, as indicated by comments such as the following:

The xxx modules that I wrote five or six years ago have not been changed one scrap! They were taken from me and given to somebody as a module coordinator and two weeks ago I was pulling up the modules to see how they had progressed over the last five or six years – nothing has changed, so I think we pay lip service ...

It is understandable that such things happen, given the high workload and need to move academics between programmes, but such a scenario could be avoided if curriculum development were regarded as an ongoing process, where space and time is created for the whole team to look at what they have been doing, how successful it has been, what needs to be changed and how it could be changed. Individual lecturer reflections presented to team members could then be critically appraised by the team, using the agreed on values and paradigmatic principles as "living standards of judgement" (Whitehead 1989:44) to ensure that changes and developments to individual modules are in keeping with the stated outcomes of the curriculum and that the curriculum remains contextually relevant to the changing educational environment. Since social forces in society are one of the "foundations of curriculum" (Wiles &

Bondi 1998:17), and since these are changing at such a fast pace today, it stands to reason that university curricula have to make sure they keep abreast in order to remain relevant.

Individual decisions made regarding curriculum content

Another concern that was highlighted is that some lecturers were choosing not to integrate HIV education into their modules. The reasons given for this varied. They included fear that students might be led to share and disclose personal status to the lecturer (“I cannot have disclosure”; “I have not got to the emotion behind it, I think that is because I am a little bit scared of it”); a lack of confidence in their own knowledge of what content to include and how to integrate it (“I am committed to making our module ‘HIV-friendly’, but to be quite honest I don’t know how”); and not recognising the importance of it. As one participant said:

The reasons why I or one of us would not integrate is affected by his or her own epistemology, you know, his or her own attitude and denial. We need to acknowledge that we come from different cultural backgrounds.

Since the AR process starts with identification of epistemological and ontological values and a critical reflection on how they are being operationalised in practice, such responses could be minimised, as lecturers are helped to compare what they are doing to what they should be doing according to the basic values and paradigm informing the curriculum.

Discrepancy between accepted outcomes and implementation in practice

What is theoretically accepted as important curriculum outcomes and content is not always reflected in actual implementation. As one lecturer put it, “What I believe and what I do are two different things. I believe it should be out there” (in the curriculum), but the same lecturer said they had “shied away” from introducing anything more than statistics around HIV and AIDS, resulting in teaching around it being done “in a very impersonal way”, which the lecturer thought was not very effective. This emphasises the need for lecturers to reflect critically on their own feelings, attitudes, fears, needs and beliefs and to share these with colleagues, so that they can arrive at some kind of agreement on what should be addressed and how it could be included meaningfully in particular modules that make up the curriculum. By making their values explicit and by explicitly identifying and sharing their perceived barriers to living out professed values, professional development interventions could be instigated to help lecturers develop their understanding of HIV education and minimise personal and professional barriers to effective implementation. By holding themselves accountable to their values and to the rest of the team, it would reduce the gap between theory and practice, between what they believe they should be doing and what they actually do, and avoid situations arising. One lecturer made the following comment in this regard:

I put a little [HIV education] in our FET but it is not enough. I kind of patted myself on the back and said, ‘Okay, it is done now, it is in our curriculum,’ and I kind of thought it was okay, because we had XXX teaching them the nitty-gritty.

What can we do to improve the situation and how will we know when it has improved?

The concerns outlined above provide insights into what the next step in the action research process of curriculum transformation should be. All academics involved in a particular programme can now be brought together to discuss these concerns, brainstorm ways to overcome problematic issues and collectively decide on action to be taken to ensure that everyone has a compatible understanding of what HIV education entails; that everyone feels comfortable in addressing it or is able to negotiate ways that would make them feel more comfortable; that all are knowledgeable about the different pedagogical practices that can enhance HIV integration; and, most importantly, that all are committed to reflect critically on their own practice to ensure continual learning and improvement.

Findings from the baseline study were not all negative. They also indicated a marked difference between those lecturers who had already begun to conduct inquiries into their own practice and those who had not yet started to do so. Those who had were clear on why they were integrating HIV education and how it linked with their personal values. One example of this positive attitude is clear from the following comment: "I think it is my social responsibility, you know as a lecturer, to make sure that students are aware of the issues and that they can talk about them."

The lecturers had also accepted that to be able to integrate HIV education, they had to make sure they were knowledgeable enough to do so. By reflecting on her reluctance to teach about HIV, one lecturer came to the conclusion that her knowledge was limited and she decided to research it for herself and to think about ways in which she could integrate it. The lecturers who had started this process of inquiry into their own practices had developed interesting and unique ways of integration, for example by using interactive drama, case studies and even self-disclosure of experiences with people with HIV and AIDS. They had begun to gather data about the influence their teaching had had on students and their own learning, and had started to produce accounts of how their learning had developed in this area, some of which had been published in scientific journals. Listening to these lecturers speak about what they were doing, it was also apparent that they were passionate and motivated about their teaching in general.

Reflection within the interview itself already motivated one lecturer to move to make changes to the curriculum:

Perhaps this interview is a positive thing and the timing is right because I have to rewrite, to change some modules. Um, change the assignments for example, and now perhaps the thought of doing it is revived because nobody asked me over the last two years so I could just leave it and let it die.

Lecturers also mentioned the need to reflect on and change their pedagogical approaches since placing themselves in the position of the 'knowers' and the students as the 'unknowing' made no sense in the context of HIV and AIDS. The students

had more experiential learning of the pandemic than the majority of lecturers, who remained relatively untouched by it. There was also the realisation that an inflexible teacher-centred approach was not suitable:

If you come along and say these are my notes, and this is what I am going to discuss with you today, and we are not going to be able to vary from this ... you are kind of sunk, because there is not a body of facts that is going to make people change their behaviour ...

Action research forces lecturers to question themselves continually about what they are doing, how effective it is and what they could improve on. Questions such as: Am I allowing opportunity for all students to engage in class? Am I treating students with respect and viewing their contributions as useful to knowledge creation? Is my teaching reflecting the values on which the curriculum is based? Is the content up to date and relevant to the outcomes? How can I encourage participation in class? How can I encourage critical thinking and questioning in class? As individuals grapple with such questions, sharing their reflections with colleagues, a community of practice develops whose aim is to find answers that will inform curriculum development (e.g.: What epistemology/ontology should inform our design? What are our views of learning? What are our conceptions of teaching?) and implementation (e.g.: How can we ensure that what the students are learning is relevant? How can each module address the aspects we have identified? How can we ensure that we do not duplicate unnecessarily or omit important information? What teaching and learning strategies will work best to ensure maximum participation, critical thinking and change in our students?). The questions are endless, but the values-based inquiry undertaken both individually and collectively will enhance the curriculum development process and the product.

WHAT HAVE WE LEARNT FROM OUR INTERVENTION? WHAT ARE THE IMPLICATIONS FOR OUR FUTURE CURRICULUM DEVELOPMENT AND IMPLEMENTATION?

Although this research project is still in its first stages, the data collected so far indicates clearly that HIV material and outcomes cannot simply be dropped into a curriculum and that there is a need for curriculum development and transformation at a programme level. Although the data generated by the interviews revealed that some lecturers are actively engaged in addressing HIV integration, there is no platform for them to share what they are learning, outside of writing it up for a publication. This means that colleagues working on the same programme are unaware of what the others are doing and therefore an important learning opportunity is lost. If academics teaching on a specific programme could share their research findings to contribute to the collective design and evaluation of the curriculum, on an ongoing basis, then it would be more likely that what we are teaching to prospective educators would be more relevant to preparing them for the reality of teaching in a world burdened by HIV and AIDS.

On a more general level, an action research approach such as the one described above would also help to ensure that academic quality is promoted, since each lecturer would be responsible for not only monitoring his or her own practice, but also critically

validating the work of colleagues. In this way, curriculum development and evaluation would be approached from an 'insider' perspective, rather than focusing on externally stipulated criteria. The aim of action research is to improve educational practice and advance knowledge and theory related to "how things can be done and why" (McNiff & Whitehead 2006:1). Through critical self-reflection and group reflection, academics can think about what they are doing and why, raise questions and concerns and brainstorm ways to address these. By having standards of judgement that have been collectively agreed on, quality assurance becomes a personal undertaking, and thus more likely to be carried out with integrity, since academics will be accountable primarily to themselves and their values, and not only to an external evaluator.

Since participation is a non-negotiable value underpinning action research, the process is inclusive of all, allowing multiple voices and opinions to be heard and taken into consideration. The final product is therefore more likely to be accepted and considered relevant by academics, thereby enhancing the likelihood that it will be implemented with integrity.

Since ontological and epistemological values are explicitly identified and accepted as "living standards of judgement" (Whitehead 1989:44), both individually and collectively, there is less risk of a hidden curriculum emerging in practice that might taint the integrity of the intended outcomes. Critical self-reflection and group validation promotes transparency and integrity in the curriculum content and pedagogical practices, ensuring that the intended and enacted curriculum are as similar as possible (Hoadley & Jansen 2009).

The participative and interactive process tends to foster collegiality and to generate enthusiasm and interest among academics (Conolly 2010). This results in active participation in ongoing curriculum inquiry, leading to continual development and improvement. As one lecturer commented, regarding her motivation to change what and how she was teaching, "I do need a kick in the butt, now and again!"

The action research process, I would argue, could help academics to develop a more intrinsic approach to curriculum development than this quote suggests.

CONCLUSION

In this chapter I have argued for the implementation of an action research process, of the values-based self-inquiry genre, to promote coherence and relevance in curriculum development and implementation. Through the provision of an example from HIV education, the data have provided evidence that curriculum development and inquiry is not always undertaken in a coherent, systematic and critical manner, and that it requires participation from all involved. The dangers of working in isolation, without strong guiding values and principles, are evident from the examples provided. A case has been made for the adoption of an action research approach to the curriculum development process to ensure that it is dynamic, flexible, culturally and contextually relevant and inclusive of multiple views and voices. Since action research comprises

an ongoing quest for improvement, curriculum development remains a constant and integral component of the academic practices of faculty, thereby enhancing quality assurance and increasing the potential that what students learn may actually enable them to become teachers that are truly prepared for current educational contexts.

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15

INFORMING CURRICULUM DEVELOPMENT IN HEALTH SCIENCES

A DELPHI METHOD INQUIRY

Cristina Stefan

INTRODUCTION

The education of future medical professionals has to ensure that their knowledge and skills are relevant to the health care needs of their future patients, in a context of continuous change of society, science, technology and environment. A rapid tour of the horizon will identify a few examples of evolving health care needs, which should inform the curricula of medical schools. To start with, the disease profile of populations evolves as their income and lifestyle change and their life expectancy increases. Another example would be the latest pandemic of HIV/AIDS, which requires appropriate medical skills and a rethinking of the management of many diseases for those living with the virus. Further, patients' increasing awareness of their rights has to be paralleled by doctors' awareness of the complex ethical issues which sometimes arise from the practice of the profession. In addition, the progress of science opens new knowledge domains, such as genomics – the study of the structure and function of genes – which reshape the understanding of disease. The accumulation of data from extensive research in all fields of medicine makes it possible, for the first time in the history of the profession, to practise evidence-based medicine, informed by the systematic analysis of the results of numerous studies on the same disease and thus to move away from treatments based merely on case series or expert opinions. A further example, by no means the last, is the renewed interest in complementary and alternative medicine in the search to expand the therapeutic panoply against disease.

Against this background, the medical education methods also undergo change: for example, instead of attending lectures and tutorials only, students increasingly participate in problem-based learning or may have Internet-delivered e-learning programs. Alongside this, medical schools have to acknowledge the evolving educational needs of the students, as their demographics show more diversity in ethnic and cultural backgrounds. To end this selective list of examples of change which have to reverberate in the planning of medical studies curricula, continuous medical education deserves mentioning: for the medical profession, life-long learning has become the

norm and medical schools need to involve themselves in planning and delivering programmes targeting practising professionals.

A major task of curriculum planners in health sciences, just as in other learning fields, is to identify changes as those illustrated above, even to predict them to a certain extent and then maintain the relevance of the training of future doctors, by an appropriate selection of educational experiences offered. This chapter proposes to analyse the curriculum development theory in medical education in order to identify the mechanisms for ensuring the adequacy of the training of students for their future practice. In this context, the use of the Delphi method of inquiry will be described in more detail. This includes the author's research.

The process of curriculum development in medical education is informed by the need to attain a certain level of competence which, historically, has been monitored by an administrative authority and which is defined by clear domains of knowledge and skills to be acquired by the future doctor. Then the content of the curriculum, its teaching methods and its assessment system are all aimed at handing on this knowledge and skills to the student. Such terms of reference dictate a strong adherence to scientific curriculum development principles; this will also appear from the analysis that follows.

There are four elements that need to be addressed in the process of curriculum design: content, teaching and learning strategies, assessment processes and curriculum evaluation processes (Prideaux 2003). Most modern thinking in this field revolves around these components. Dent and Harden (2009), for example, propose 10 steps toward curriculum development: assessing the need to be covered by the programme, defining the student outcomes, selecting the content, organising the content, delineating the educational strategies, selecting the teaching methods, assessing the student progress and the efficacy of the teaching programme, communicating the curriculum to all stakeholders, including students, organising the educational environment and managing the curriculum. Fish and Coles (2005:104) similarly structure their description of the medical curriculum development around an initial comprehensive assessment: clarifying the aims of the curriculum, the values of the profession and the nature of practice – “a survey of the field”. Thereafter follows the defining of content, of educational strategies and assessment methods, and ending with implementing and managing the curriculum on the ground.

A comprehensive model of medical curriculum development was created by a group of specialists at the Johns Hopkins University Faculty Development Program for Clinician-Educators (Kern, Thomas, Howard & Bass 1998; Kern, Thomas & Hughes 2009). They envisaged a rational curriculum design approach in six steps. Resulting from a sustained process of training faculty in curriculum development and assessment skills, continued for more than two decades, their approach has gained a substantial international popularity. The analysis that follows focuses mainly on the framework proposed by the Johns Hopkins group. While being similar in structure to the models of curriculum design mentioned above, the approach proposed by Kern and collaborators has the

advantage of having been tested in practice over a longer time and in different cultural environments (Amin & Eng 2003). The Johns Hopkins group has recently updated its approach, based on the review of the experience accumulated over the last 10 years (Kern *et al* 2009).

A RATIONAL APPROACH TO UNDERGRADUATE MEDICAL CURRICULUM DESIGN

The Johns Hopkins model draws on previous work by curriculum specialists such as Ralph Tyler (1949) and Hilda Taba (1962). Reviewing their contribution to curriculum development theory, Print (1993:64-66) describes their proposed rational model in curriculum design which would start with defining objectives and continue to selecting learning experiences that may help in attaining those objectives, then to organising these experiences and concluding with evaluation in order to find whether the learning objectives were attained. A cyclical curriculum planning process was envisaged by DK Wheeler (1967) and furthered by Nicholls and Nicholls (1978) some years later. The steps proposed by Wheeler were largely similar to those delineated by Taba and Tyler, but this time in a cyclical arrangement that highlighted the idea of interdependence between the steps and of curriculum evolution as the cycle repeats itself. Print (1993:70-72) describes how Audrey and Howard Nicholls introduced an important preliminary step in curriculum design: situation analysis, which is an initial (or, due to cyclicity, periodical) tour of the horizon of all factors that determine the choice of curricular objectives.

Kern and colleagues, who were responsible for developing the Johns Hopkins model, acknowledge that their inspiration came from such works. The model they proposed comprises six steps: problem identification and general needs assessment, targeted needs assessment, formulation of goals and objectives, choice of educational strategies, implementation, and evaluation and feedback (Kern *et al* 2009). Its structure remains cyclical, however “these steps do not always follow one another in sequence, but do constitute a dynamic, interactive, and systematic process” (Thomas & Kern 2004:599). The content of each step is detailed below.

The problem identification and general needs assessment constitutes the most important step, as its findings would inform the whole subsequent planning of the curriculum. It consists of identification, followed by a comprehensive critical analysis, of the health care problem that will be addressed by the curriculum. It requires substantial research to analyse what is currently being done by practitioners, educators, patients and society in general i.e., the current approach, and what should be done ideally by practitioners, educators, patients and society to address the health care problem, thus constituting the ideal approach. The general needs assessment is usually stated as the knowledge, attitude and performance dearth that the curriculum will address (Kern *et al* 2009:6). The methodology they propose for implementing this step is summarised in Table 15.1.

TABLE 15.1 Methods for obtaining the necessary information for a situation analysis
(Kern *et al* 2009:17)

Review of available information	<ul style="list-style-type: none"> ▪ Evidence-based reviews of educational and clinical topics ▪ Published original studies ▪ Clinical practice guidelines ▪ Published recommendations or expected competencies ▪ Documents submitted to educational clearinghouses ▪ Curriculum documents from other institutions ▪ Patient education materials, prepared by foundations or professional organisations ▪ Patient support organisations ▪ Public health statistics ▪ Clinical registry data ▪ Administrative claims data
Use of consultants / experts	<ul style="list-style-type: none"> ▪ Informal consultations ▪ Formal consultations ▪ Meetings of experts
Collection of new information	<ul style="list-style-type: none"> ▪ Surveys of patients, practitioners or experts ▪ Focus groups ▪ Nominal group technique ▪ Group judgement methods (e.g. <i>Delphi method</i>) ▪ Daily diaries by patients and practitioners ▪ Observation of tasks performed by practitioners ▪ Time and motion studies ▪ Critical incident reviews ▪ Study of ideal performance cases or role model practitioners

The next step in accumulating the necessary information for designing the curriculum is the targeted needs assessment. Here, the specific needs of the students attending the medical education institution are scrutinised, as well as the specific needs of the institution itself, in connection with the subject of study in which the curriculum is developed. Amin and Eng (2003:60), describing their experience with the Johns Hopkins model, indicate a number of student characteristics that may need to be evaluated: their level of competence when entering the programme; their ability to undertake self-directed and group study; their individual goals and priorities, including reasons for enrolling; their attitude towards the subject studied and their assumptions and expectations from the programme. Written questionnaires might be useful in this step.

On the basis of this comprehensive analysis, the goals and objectives of the course can be formulated. Kern *et al* (2009) argue that they should cover three areas: knowledge, skills and attitudes. This step is crucial for the selection of the most effective learning methods, as well as for the adequate choice of assessment methods. The choice of

teaching strategies must be aligned with the objectives, as stated above. The methods employed must be diverse, as required by the matters to be taught, knowing also that the ways students learn differ according to their personality. On the other hand, in choosing the methods, planners need to take into account the available material and human resources (Amin & Eng 2003). The potential to alienate teachers who do not cope with curricular changes is real, and it was advocated that they should be involved early in the development of new curricula and that they should receive training in the required new teaching methods (Lanphear & Cardiff 1987).

Students learn with examinations in mind and therefore the assessment methods should be carefully planned, on the basis of the objectives of the course. The assessment should address essential knowledge, skills and behaviours which will be required for practice by the future graduates. It should be planned at the beginning of the course, not at the end, and the learners need to be informed of the ways in which this assessment will be conducted.

Finally, the evaluation of the curriculum has to be planned for. This should be an ongoing process and not be left for the last days of the course. The evaluation may be done not only by the learners or faculty involved, but it may involve faculty from related disciplines (Burke 2002). An anticipatory evaluation, before the course actually starts, may be organised, involving students and faculty who did not participate in the development of the curriculum (Hollander, Leese & Irby 2002).

The principal merit of this approach, besides defining the internal architecture of the process of medical curriculum design, is the recognition of a general needs assessment, as well as of a targeted needs assessment, as the basis for structuring the programme. The curriculum is not seen as a rigid entity; on the contrary, it needs to evolve, to adapt in order to continue to fulfil its role. This evolution requires feedback. The sixth step in the Johns Hopkins model, the evaluation of the curriculum, brings feedback on the internal functioning of the system, i.e. how well it works to help the learners to achieve the desired objectives, how well the lecturers are coping, the adequacy of resources, and other aspects. The first step, the needs assessment, repeated at regular intervals (as prescribed by the cyclic character of the curriculum design), ensures that the programme remains attuned to the requirements of the society at large and of the accrediting and licensing organisations, as well as to the requirements of the practitioners in the field and, most importantly, to the needs of the patients. It is this first step that constitutes the focus of the rest of this chapter.

OVERVIEW OF THE TOOLS USED IN A NEEDS ASSESSMENT

Table 15.1 lists the various methods which might, according to Kern and collaborators, be used when performing a needs analysis. They stress that the review of the available information and the consultation of experts are, in fact, the usual methods and that they would, in most instances, be sufficient to perform a valid general needs assessment exercise. Done in this way, the analysis should not require excessive time

or resources. It would entail going through the literature, reviewing the curricula of other similar institutions and other published curricula, consulting the standards set by the regulatory authorities or meeting with experts in the particular field where the curriculum is positioned. Kern and collaborators are of the opinion that direct consultation with the stakeholders (practitioners, educators, patients and society representatives) is necessary only when the resources mentioned above do not offer sufficient data to ensure a comprehensive grasp of the general needs. However, my research (Stefan 2009) indicates that the value of such direct inquiry should not be underestimated, as it has the potential to detect the real needs of the beneficiaries of the curriculum, i.e. practitioners and their patients, as presented by themselves. It may be necessary to perform such analysis initially and at regular intervals, as a guarantee that the curriculum is and remains effective.

Delphi as a method of curriculum inquiry

Drawing on the Johns Hopkins model discussed above, I would argue that the adequacy of the medical curriculum, in the face of evolving patients' and practitioners' needs, is maintained by the cyclicity of assessing the general needs and the targeted needs. Such assessment consists mainly of gathering information from various written sources. It also includes monitoring the activities of learners, patients, practitioners or experts and eliciting the opinions of these groups (see Table 15.1). Several methods for opinion gathering are suggested by Kern *et al* in the table mentioned: meetings of experts, surveys, focus groups, meetings where the nominal group technique is applied in order to establish a hierarchy of shared opinions, and the Delphi method.

When using any of these methods for opinion gathering, the curriculum developer should be aware of the specific advantages, disadvantages and pitfalls of each of them. Expert meetings should be monitored for patterns of interactions between participants such as 'follow the leader' behaviours or reluctance to abandon previously stated opinions in order not to lose status within the group. Such group dynamics may yield an unbalanced opinion, where the more vocal or authoritative members effectively silence the opinions of the other participants (Forsyth 2010).

Focus group discussions are structured as interviews held simultaneously with a small number of participants (Varkevisser, Pathamanathan & Brownlee 2003). The method allows capturing multiple opinions simultaneously on the same matter and thus achieving awareness of the various facets of the issue being studied; also, the interaction between members may be stimulating and contribute to generating ideas. However, this method also has disadvantages: due to the multiple participants, focus group discussions require a large investment of time. The geographical distribution of the locations of various experts can make it difficult to assemble them for the purpose of discussions. The dynamics of a group as discussed above, i.e. the influence of dominant individuals, peer pressure to conform, as well as noise, add to the difficulty of conducting successful discussions.

Surveys by questionnaire – self-administered – are not expensive; by providing anonymity they may elicit more honest responses; the possible bias, sometimes induced by rephrasing the question during interviews, is eliminated. However, questions may be misunderstood and it is easy for the subjects to neglect responding. A low response rate to a questionnaire survey introduces a bias which cannot be compensated for, as the responses of those who chose not to participate cannot be known or guessed (Varkevisser *et al* 2003).

In the nominal group technique, participants are invited to write their thoughts on the issue under discussion, individually. Thereafter the group would discuss in order to achieve full understanding of the ideas they wrote down and rate them for relevance to the solution sought. This technique encourages unrestrained individual contribution, in an attempt to minimise peer influence. However, it requires a trained group coordinator and the assembling of a group of individuals at a given venue and time (Stewart, Shamdassani & Rook 2007).

The Delphi method eliminates many of the disadvantages of the methods mentioned above. Delphi is a technique for eliciting suitable information for decision making, based on the opinions of a group of experts. It is based on a structured process for collecting and synthesising knowledge from the participants by means of a series of questionnaires accompanied by controlled opinion feedback (Adler & Ziglio 1996). Olaf Helmer and Norman Dalkey developed the method at the RAND Corporation in California, USA in the 1950s, originally as a means of forecasting events in the military domain. Its name was inspired by the oracle at the temple of Apollo in Delphi, where, in the times of ancient Greece, people would arrive from distant places to seek answers about their future.

The underlying philosophical concept of the Delphi method is that, in fields of knowledge which have not yet developed to the point of having scientific laws, the opinion of the experts is admissible in order to circumscribe the reality (the philosophical underpinning of the method is described extensively in Linstone and Turoff 2002). Our understanding of reality is seen as a spectrum of degrees of accuracy. At one end of it is the knowledge: this is thoroughly supported by solid evidence, usually obtained by the scientific method. At the other end, little or no available evidence leaves the ground open for speculation. The segment of spectrum situated between the extremes is the realm of wisdom, or insight, or informed judgment. This is where Delphi may be used in order to optimise the information that can be extracted from such wisdom (Dalkey 1969, cited in Adler & Ziglio 1996:6).

In order to attain such purpose, the Delphi method uses three specific components: (1) mailed or e-mailed questionnaires, thus ensuring the anonymity of the panellists; (2) controlled feedback, and (3) statistical response.

Description of the Delphi method

A Delphi inquiry on a given subject begins with establishing a team to undertake and monitor the procedure (Illinois Institute of Technology 2008). The team then selects, among the experts in the area being investigated, a number of participants whose opinion will be sought. After securing the participation of the experts, the Delphi team develops a questionnaire exploring various aspects of the subject of the inquiry. The questionnaire is then tested for adequate wording, in order to eliminate ambiguities and vagueness. The questionnaire is then sent to the participants, by mail or e-mail.

The responses received are analysed for concordance between experts. The Delphi team will already have established what percentage of concordance between experts will be considered as consensus (50%, 75% or more). A number of answers will have attained the set percentage of concordance, meaning that the experts have reached consensus on those items. A second questionnaire is now prepared, including only those questions where there was no consensus among the participants, together with a statistical feedback, indicating the various answers given by the experts to every question and the number (or percentage) of participants who gave each answer. All experts receive the second questionnaire, while being informed that, should they now have a different opinion on the matters under inquiry, they can give a different reply than their previous one. On analysing the answers from this second round, further consensus will be seen, as some of the experts will have changed their own replies to coincide with those of the majority. A third questionnaire is set up, following the same procedure as for the second one. More items will now register consensus. The process may be repeated as many times as desired or until either complete consensus or stability in the answers (i.e. no more change of opinion) is attained. The team can now prepare their final report on the results of the Delphi inquiry.

The proper selection of participants requires a clear definition of who is an expert for the purpose of the survey. Here, the most important attribute is not the academic proficiency (which indeed may be required for specific applications) but rather knowledge of and practical involvement with the issues under investigation. An inadequate selection of the panel will lead to meaningless answers.

Delbecq, Van de Ven and Gustavson (1975:88) define three groups of people who are well qualified to be subjects of Delphi:

1. the top management decision makers who will utilise the outcome of the Delphi study;
2. the professional staff members together with their support team; and
3. the respondents to the Delphi questionnaire whose judgments are being sought.

The size of the panel does have an influence on the results. If, for instance, it consists of a homogeneous group of experts, 10 to 15 participants would be enough. However, if various reference groups are involved, the panel must be much larger. Dalkey (1972, cited in Linstone & Turoff 2002:224-230) has shown that the size of the group

influences the accuracy of the results up to a certain point. Beyond that point, however, there is very little to gain, in terms of result precision, from widening the group

The ultimate aim of a Delphi exercise is that of obtaining a collective answer to the question asked, with facilitated consensus. Should answers indicate divergence in opinions, the authors should explain their views and these explanations should be analysed. Both consensus and dissension are valuable and should be explored with regard to their reasons and to their significance towards the solution sought. The method has been applied in almost 1 000 studies worldwide, involving panels of various sizes, for evaluating phenomena (and especially predicting their course) in the industrial, military, economic and social fields (Gupta & Clarke 1996; Landeta 2006). Its use in medical education is explored in the section that follows.

Aspects of using the Delphi method in the design of medical curricula

The Delphi method has been chosen by numerous teams of researchers worldwide for surveying expert opinions in the process of designing medical studies curricula. It was used, for example, for determining the content of core undergraduate psychiatry (Wilson, Eagles, Platt & McKenzie 2007); to identify the priorities to be met by a family medicine training programme (Kanashiro, Hollaar, Wright, Nammavongmixay & Roff 2007); to obtain the students' perspectives on a radiology curriculum (Subramaniam, Beckley, Chan, Chou & Scally 2006); for involving patients in curriculum development (Alahlafi & Burge 2005) and in many other studies. The method was found to be suitable for determining the outcomes (Clayton, Perera & Burge 2006), the contents (Carley, Shacklady, Driscoll, Kilroy & Davis 2006; Kilroy & Driscoll 2006) and the methods of teaching (Fallon & Trevitt 2006) for various medical programmes.

All studies consisted essentially of a list of items such as outcomes, skills, course topics or teaching methods, which was submitted for rating of importance (this meaning mainly usefulness for medical practice) to a panel of experts. The list might have been formulated by the authors, obtained from other curricular documents or drawn up by a group of experts specifically tasked to design it. Sometimes the list was based on interviews or free text questionnaires answered by the same panels of experts who would be asked to do the ratings. The responses to such instruments were analysed by means of the coding method, where fragments of the analysed text are allocated 'tags' – named codes – which encapsulate the contents of the fragment; these codes are later grouped together according to their meaning and thus the main ideas of the text are identified (Auerbach & Silverstein 2003:43; Creswell 2009:188). The results obtained were sometimes combined with other sources from literature in order to compile the list of curricular components whose rating was sought.

As outlined above, the expertise of a panel member was generally not related to the academic status but to the experience regarding the subject under study. For instance, a student can be an expert whose opinion on the impact of a number of teaching methods may be sought, on the basis of the student's experience of the effects of

such methods (Mifflin, Campbell & Price 1999). Nevertheless, in curriculum-related matters, most studies generally sought the opinions of professional authorities in the respective domains.

It is important to note here that the Delphi survey result did not constitute, in any of the mentioned studies, the curriculum, not even the syllabus, but was used to ensure the relevance of the training programme for the future professional practice of the group of targeted learners.

Advantages of using the Delphi method

The main advantage of the method is that of circumventing the common biases which often arise from group interactions such as the influence of dominant individuals, group pressure for conformity, and noise (i.e. loss of focus and drifting from the issues studied, whether due or not to individuals or sub-groups trying to push their own agendas) (Dalkey 1972, cited in Hsu & Sandford 2007). This is achieved by suppressing direct contact between the panellists, giving anonymous feedback with the iterations and ensuring confidentiality. A second advantage, one that is equally important, is that of fostering consensus among the panellists, which increases the validity of the results. Further benefits are related to reduced time constraints for the participants as the respondents can choose the proper moment to work on the questionnaire. In addition, considering and reconsidering the same issues, in the light of the offered feedback, constitute a stimulus for in-depth thinking. The controlled feedback and anonymity enable panellists to revise their opinions without publicly admitting to doing so, and this encourages them to take a personal viewpoint rather than a more cautious public position (Gupta & Clarke 1996). Furthermore, the method gives the possibility of addressing experts in largely distant geographical locations, by means of e-mail.

Disadvantages of using the Delphi method

The Delphi method was created to facilitate the prediction of change (hence the same name as that of the famous oracle), yet its usage in forecasting was strongly criticised, as many felt that predicting the future is an act of high importance and should not be entrusted to a technique that has no connection with the scientific method or with mathematical formulas. However, in curriculum inquiry Delphi is not an 'oracle'. Other criticisms have highlighted the vulnerability of the method to "conceptual and methodological inadequacies, potential for sloppy execution, crudely designed questionnaires, poor choice of experts, unreliable result analysis, limited value of feedback and consensus, and instability of responses among consecutive Delphi rounds" (Gupta 1996, cited in Hanafin 2004:40). The answer to these critics is that poor implementation of a technique should not be seen as a disadvantage of the technique itself, as Adler and Ziglio (1996:13) point out:

There is no reason why the Delphi method should be less methodologically robust than techniques such as interviewing, case study analysis or behavioral simulations, which are now widely accepted as tools for policy analysis and the generation of ideas and scenarios.

Another disadvantage arises from the unclear distinction between who may be an expert or a layman with respect to the issues studied, and lack of sufficient evidence that the opinions of experts are more reliable than those of laymen (Gupta & Clarke 1996). Further disadvantages of the method are related to the requirement for the meticulous preparation of the questionnaires, which should be formulated without any ambiguity. Another critical area is the judicious choice of the participants: the criteria for selection have been mentioned above. A frequently mentioned further difficulty is the long time required to implement it, which typically is three months for a three-round Delphi survey. This is especially inconvenient when immediate answers are needed.

It is easy to assume that the content of the feedback would exert a major influence on that of the answers. A potential for moulding the opinions of the respondents exists here and, indeed, a number of experiments have shown that participants in Delphi would rate their subjects differently after receiving distorted feedback (Hanafin 2004; Hsu & Sandford 2007). However, expressing the feedback as a numerical measure of specific opinions leaves little place for distortion.

Issues of reliability and validity

As the Delphi method elicits and analyses only the opinions of the chosen experts, their degree of expertise or familiarity with the researched problem influences the validity of the results. Another issue related to the validity of the results is whether the convergence/consensus attained is indicative of the correct (or true) answer to the question. Dalkey (1969:18) has shown that, statistically, the convergence obtained by the method is in the direction of the true value. By using almanac-type questions within a Delphi questionnaire administered to graduate students at the University of California, Los Angeles, (“... who did not know the answers but had some relevant knowledge ...”) he was able to ascertain that, for a high level of confidence in the answer given and a low dispersion of the answers (consensus), the results of the Delphi method were at a close range of the real answer.

The average error of the answers decreased with the increase in size of the group, with a reduction of approximately 50% for groups counting seven members. From there, the rate of decrease of the error diminished at a smaller rate; for instance, adding another 20 members to the group only reduced the error by an additional 10%. This finding justifies the relatively small size – 10 to 15 participants – of a panel of experts, as mentioned above. The degree of consensus was shown to increase with every iteration but the maximal increase occurred at the first iteration; with further rounds, the progress towards consensus was much slower. The accuracy of the answers increased, similarly to the degree of consensus, mainly with the first iteration, and afterwards it fluctuated.

It is difficult to test the reliability of the method. Gupta and Clarke (1996) indicate why: in order to determine that the answers reflect the true judgements of value of the panellists on the issues studied, a large number of repetitions of each test need to be administered, which is not consistent with the nature of the Delphi.

AN APPLICATION: DELPHI AS A METHOD OF INQUIRY INTO THE RELEVANCE OF AN UNDERGRADUATE HAEMATOLOGY CURRICULUM FOR GENERALIST PRACTICE

The undergraduate curriculum in haematology at the Faculty of Health Sciences, Stellenbosch University is developed by sub-specialists in the discipline, with the contribution of a general practitioner, to ensure a valid connection with the field of practice of general medicine. Regular student feedback mostly raises issues of a technical nature, such as the format of computer tests and the timing of the course, and clashes with other student activities. Sometimes, however, the students questioned the usefulness of some of the matters presented for their future practice and the lecturers felt that they had too little evidence to support a credible answer. The research literature on undergraduate haematology curriculum is minimal: a single study (Broudy & Hickman 2007) surveyed the undergraduate programmes at medical schools in the USA and found a great diversity of content and teaching methods among them. By contrast, the postgraduate haematology training is oriented by model curricula, originating from the American Society of Haematology and the European Haematology Association.

This situation led the author to undertake an inquiry into the relevance of the haematology curriculum for generalist practice at the Faculty of Health Sciences, Stellenbosch University.

A general needs assessment was conducted using the Delphi method to survey the opinions of all stakeholders in the haematology training programme at the Faculty of Health and the findings were compared with the provisions of the existing curriculum. The significance of discrepancies thus found were analysed and proposals were made towards adjustments in the haematology curriculum (Stefan 2009).

To this end, several panels of professionals were surveyed, each representing a category of stakeholders in the haematology programme: five adult medicine haematologists, 10 paediatric haematologists, four laboratory haematologists, 10 interns, 14 students and 20 general practitioners. An open-ended self-administered questionnaire was first used, in which the participants were invited: a) to list the knowledge and skills required in the management of haematological patients in their practice and b) to suggest topics for inclusion in – or exclusion from – the curriculum, based on their own experience. The answers were analysed using the coding method (see above) and by extracting the main themes.

On this basis, and including the items already existing in the haematology curriculum, a list of elements of knowledge and skills was drawn up and the participants in the study were invited to rate the importance of the topics on a Likert scale ranging from one to four: 1 – strongly disagree; 2 – disagree; 3 – agree; 4 – strongly agree. The rating had to be based on the usefulness of the topic for medical practice, according to the participant's opinion. The scale was chosen in such a way that an undecided 'middle' option was not possible.

The answers were analysed in order to determine the consensus on the value of the items. This was defined as the event where a minimum of 80% of the participants ascribed the same rating to a given item. A new list was then drawn up, excluding those items on which consensus had already been attained; this list also showed the distribution of votes, in percentages, for each rating regarding every item. This new list thus informed the participants of the opinion of the other panellists. In the accompanying letter, the specialists surveyed were offered the option to review their position on the significance of the items listed and, if their opinion had changed, to re-rate them.

The new ratings were again analysed for consensus and the process was repeated one last time, following the same procedure as described above. These last answers were analysed along the same lines. The resulting rating was then used to formulate proposals for changing the contents of the curriculum.

Results of the Delphi inquiry

The analysis of the answers to the open-ended questionnaires revealed a few overarching concepts, among which the most important is the need to organise the material in the form of 'approaches' in order to facilitate the process of differential diagnosis, which is the most frequent task of a general practitioner at the patient-health care system interface. A number of outcomes were identified in the panellists' answers. Among these, the need to adequately detect and assess the 'red flag' signs for haematological cancers was proposed for consideration in the next curriculum.

The Delphi survey indicated a group of topics which, by almost unanimous consensus among all participants, were rated as most important for practice. At the opposite pole, a few topics were designated as devoid of utility. The remaining ones, rated as of moderate importance, could be further classified as diseases whose management falls within the area of competence of the general practitioner and pathology which usually would be referred to a specialist for management. The former require a more detailed presentation and a thorough understanding, whereas, in the latter, the emphasis should be on accurate diagnosis and timely referral. These findings were compared with the existing curriculum and the discrepancies were analysed, resulting in a set of proposals towards a framework for a new undergraduate haematology curriculum. While these proposals did not recommend major changes to the contents of the curriculum, or to the teaching methods, they revealed the need to present the information in the format of 'approaches' in order to better enable the students to work out a differential diagnosis. They also indicated the need for a shift in emphasis in favour of those topics frequently seen in practice, such as blood transfusion or haematological changes during the course of HIV infection, which at present has epidemic proportions, with less time spent on aspects that are not part of a generalist's practice, such as the details of chemotherapy for cancer. As the duration of the haematology-oncology block is very short, these proposals indicated valuable ways of optimising the teaching process.

For the first time in the literature, as far as could be determined, the research described above presented knowledge and skills items for an undergraduate haematology course which were defined and rated for importance by consensus of the curriculum developers, specialists in the field and beneficiaries of the course, i.e. students, interns and general practitioners. A comprehensive consultation with the stakeholders in the curriculum was found to generate suggestions for the existing training programme that enhanced its relevance to generalist medical practice.

The Delphi method was found to be a suitable instrument for orchestrating the consultation, its main benefit being building consensus among the participants, and offering a tool to measure the perceived importance of each item in the curriculum for generalist practice. Further research is needed in the ways of using Delphi for curriculum development and review, aimed at refining the criteria for recruiting the panel of experts, the usefulness of combining interviews with the Delphi method, the optimal timing and modality for student feedback and the frequency of curriculum evaluation.

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CRITICAL CURRICULUM INQUIRY IN AN UNDERGRADUATE VISUAL COMMUNICATION DESIGN PROGRAMME

A CASE STUDY APPROACH THROUGH A
COMPLEXITY THEORY LENS

Elmarie Costandius

INTRODUCTION

The challenge to curricula to encourage socially sustainable ways of living – environmentally, economically and socially – is a global phenomenon. An example is the Millennium Development Goals of the United Nations that aim to create a global partnership for development to address poverty, illness, health, education and environmental sustainability (United Nations 2011). The Earth Charter Initiative (n.d.) aims of addressing principles for constructing a just, sustainable and peaceful global society are similar. In South Africa, the Department of Education, in the Education White Paper of 1997 (RSA DoE 1997), as well as in the Report of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions (RSA DoE 2008), aims at addressing the importance of social change and integration. The Stellenbosch University HOPE Project (Stellenbosch University 2010), an initiative of the rector of this university, comprises concrete ways of addressing critical social issues on campus, and also in the broader South African society.

I have introduced a module named Citizenship into the Visual Communication Design (VCD) curriculum at the Visual Arts Department for first- to third-year students as a reaction to global and local calls for social transformation and because of a personal realisation of the importance of transformation. Before the introduction of the Citizenship component, social transformation issues were often mentioned, but they were implicit and never directly addressed in the VCD curriculum. The Citizenship module comprises different components: conversations, community interaction, reflection and the use of art as a medium to express and work through sensitive issues. Themes such as stereotyping, power relations, blackness/whiteness, and social deprivation have been explored among students and Grade 11 learners of Kayamandi

High School in Stellenbosch. All community interaction in the VCD curriculum take place in partnership with the NGOs Vision-K (Kayamandi) and Vision-V (Vlottenburg), which facilitate a life skills programme for Grade 10-12 learners.

Nussbaum's (2002) description of good citizenship, which includes the ability to criticise your own traditions, mutual respect for other opinions, thinking as a citizen of the world and not only locally, and imagining yourself in the shoes of others – what she calls the “narrative imagination” – was used as a framework for the Citizenship module. Students and learners wrote reflections on their experience after each interaction, as well as an overall reflection at the end of the three-week module. These reflections, together with 12 focus group interviews and observations collected from 22 learners and 65 students, were the main sources of data for the case study to investigate the value of the module.

Complexity evolves as a result of the presence of a large number of elements, and because of the relationships between all these elements. In a curriculum case study such as this, information is selected and reduced to make the data manageable and understandable, but in the process some information may be missed and the relationship among the elements that impact on the curriculum could be overlooked. In his book *Complexity and postmodernism: understanding complex systems* (2000), Cilliers describes the process of selection and reduction as actually destroying what we seek to understand.

In this chapter it is argued that critical inquiry is needed especially in the context of a curriculum for social transformation. While a case study can provide an indication of value, a more holistic inquiry incorporating a complexity theory lens could provide a richer indication of the varied nuances to the value of a module in the curriculum. In the first part of this chapter I discuss the processes followed in analysing the particular case. In the second part I use 10 criteria (Cilliers 2000) to describe the characteristics of the complex systems theory employed in re-examining the data collected in the Citizenship module. The effect of using complexity theory in combination with the case study methodology and its implications for the Visual Communication Design curriculum are indicated in my concluding remarks.

THE CASE STUDY METHODOLOGY: A DESCRIPTION OF THE PROCESS

The aim of using case study research in this particular instance was to investigate students' and learners' attitudes, perceptions and expectations with regard to the Citizenship module. The components of the research, the researcher (myself), the sampling, the data and the context, when analysed in detail, contributed to the vast number of factors yielded by the research. As an example of the complexity involved, I offer the following (sometimes conflicting) elements: who was the researcher? (white and Afrikaans-speaking); who constituted the sampling? (98% white Afrikaans and 82% female students); how were the data received? (99% of reflections were written in English); and what was the context? (a historically white Afrikaans university).

In the investigation, the context was taken into account by looking at the political, social, cultural and psychological systems in which the case study took place. Denscombe (2007:37) identifies different possible locations, namely physical, historical, social and institutional. These were taken as a guideline for analysing the context in this case study. The case was situated in two physical locations reflecting extreme opposites of the South African socio-economic reality: an affluent area (the campus of Stellenbosch University) and an economically deprived area (Kayamandi Township, a suburb of Stellenbosch). The two locations are separated physically and geographically, but they are also socially and culturally estranged from each other. Students growing up in Kayamandi Township, three kilometres from central Stellenbosch, could feel socially and culturally excluded when studying at Stellenbosch University.

Apple (2010:661) encourages serious examining of one's own "structural location" to come to grips with complex tensions in the personal and political spheres. The action-oriented case study approach (Pihlanto 1994) used in this study encouraged the realisation of the researcher's subjectivist perspective (in opposition to a more objectivist viewpoint) to understand the nature of the behaviour of people in real-world situations and to comprehend how social reality is produced. A study by Milner (2007:388) encourages researchers "into a process of racial and cultural awareness, consciousness and positionality" when conducting cross-cultural research. As a curriculum researcher, I constantly had to remind myself that bias is very possible, especially in cross-cultural research, and I had to be aware of the complexities as well as the dangers of my own prejudices and personal convictions. A focus of Milner's (2007:397) work is not the outcome of the research only, but also knowledge of the way in which the research is conducted, and who the persons are who conduct the research, their knowledge of critical racial perspectives and their own views, perceptions and biases.

An interpretive approach enabled an improved understanding of the context and qualities of the collected data. Socially constructed perspectives (Klein & Meyers 1999) proved to be valuable in sensitising me to possible contradictions, interpretations, distortions and biases of the narratives generated. A vast variety of factors emerged, as illustrated in Figure 16.1. It became clear that the factors did not stand on their own, but that some were related to others. A new meaning emerged when different factors were placed together. The relationship between the factors also became important. I chose the main themes and subthemes through a process of organising, categorising and reducing (illustrated in Figure 16.2). Inductive analysis proved to be valuable in processing and organising data into emerging themes, rather than applying a chosen theoretical framework to the data. I worked through the data twice and then started the process of identifying various factors, subthemes (or subunits) and themes (or units). A case study provides a fixed window into the situation during a certain time, but it continues to expand or change after that brief glimpse. To give an actual observation in context is not possible, and a case study as curriculum research should thus be understood as a partial view of reality.

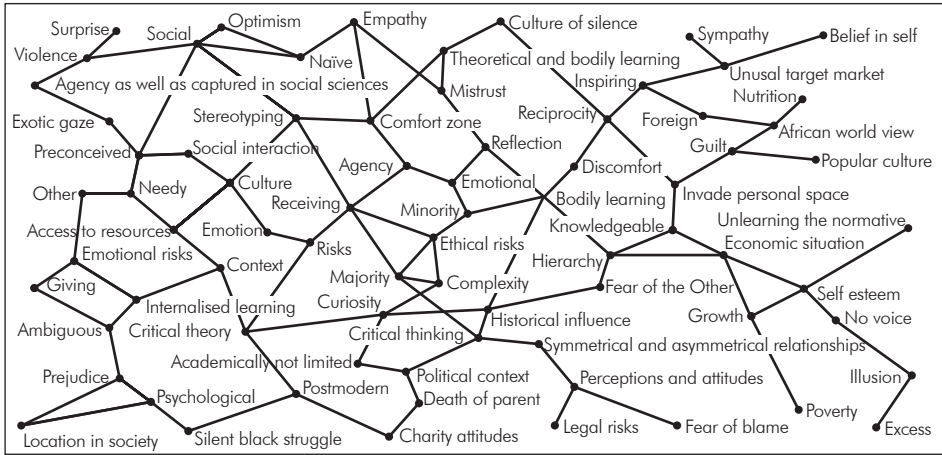


FIGURE 16.1 Factors identified in the data and the possible relationships between factors

Perceptions and attitudes	Theoretical and bodily learning	Symmetrical and asymmetrical relationships	Risks
Curiosity Fear of the Other Fear of blame Charity attitudes	Critical thinking Critical theory Historical influence Internalised learning Unlearning the normative	Hierarchy Giving and receiving Knowledgeable and needy	Ethical Legal Emotional

FIGURE 16.2 Data reduced to themes and subthemes

Complexity theory: A theoretical lens

Complexity theory was used as a lens to re-evaluate the data that emerged from the Citizenship module to improve the Visual Communication Design curriculum. The nature of complexity theory, in consisting of numerous factors that constantly influence one another to make up a complex system, makes it impossible to use it as a methodology. Complexity as a theory cannot “model the totality of things” (Cilliers 2010). Case study methodology is the only possibility within our limitations of doing research, as it is known currently, but using complexity theory as a lens should lead to a difference in perspective when conducting and writing up research, because of starting off by fully comprehending that it is not a real picture of reality that is constructed.

Complexity theory has links to other theories, such as systems theory, ecology theory and cybernetics (collectively called eco-systemic theory). Chaos theory is also mentioned in this regard, but is mostly used as a mathematical sub-discipline that studies complex systems. Eco-systemic and systems theory emphasise epistemological principles, a way of thinking or knowing to make sense of the world around us (Meyer, Moore & Viljoen 2008:467). This theory is moving away from Newtonian reductionism, objectivism or rational thinking and towards an emphasis on holistic units. This approach relates to

constructivism, in which “‘reality’ is created by the observer and there can thus be no question of one correct, objective reality” (Meyer *et al* 2008:469). Social constructivism also holds that attitudes, perceptions and expectations are socially constructed and formed in a socio-cultural context.

A human being is seen as a subsystem within a hierarchy of larger systems (such as political, social and cultural) but the individual is also made up of internal subsystems such as psychological, verbal/nonverbal, body, cognitive and spiritual (Hancock 1985, cited in Meyer *et al* 2008). Meaning is created autonomously in the interactions of the larger external systems and internal subsystems. The internal and external are interlinked and a perspective that, for instance, looks only at the psychological subsystem without also looking at the political could miss the relation between the diverse elements of a system or subsystem.

Ten characteristics of complexity theory

For the purpose of this inquiry I specifically used complexity theory as a lens, even though it is closely related to the eco-systemic theory described above. Cilliers (2000:119-123) explains complex systems in terms of 10 characteristics. I will discuss the 10 points briefly and give examples of how they relate to data analysis in curriculum research, with some references to the Citizenship module.

The first characteristic is that complex systems consist of a large number of elements. A curriculum is a complex system consisting of many elements and, because of the number of factors that play a role, will remain a complex system even though it is constantly reduced to make it manageable and researchable. The curriculum is complex because it is not only what is written on paper, but also involves where and how it plays out on the ground. Barnett (2008) refers to a hidden curriculum or a curriculum within a curriculum when he points out that what is said on paper and in policies does not always correspond with what is happening during the actual interaction in a classroom. Perceptions and expectations therefore influence the writing, implementation and research of a curriculum in subtle and complex ways.

Researching the Citizenship module is complex because of the number of factors involved. According to analytic methodology, information is selected and reduced to make it manageable and understandable, but the holistic view of all the elements together becomes lost in the process. By selecting some elements or ‘cutting it up’ we “destroy what we seek to understand” (Cilliers 2000:2). Figure 16.1, also a reduction of the complexity, includes more factors and may be a more holistic picture of reality than the reduced version in Figure 16.2. As Cilliers (2005:609) points out, “[r]eduction of complexity always leads to distortion”.

The second characteristic is that while complexity evolves because of a huge number of elements, it is also a result of the relationships between the elements (or different systems). Cilliers emphasises that a single element in a system (or a single person

in a society) has little significance in the system: “[t]he individual is constituted by its relationship to others” (2000:119, 120). Counting the sampling in a study is not complex, but establishing the political, social, cultural and psychological relationships that exist among students and learners is complex. An example to illustrate a relationship between political, social, cultural and psychological systems in the data is that of a student feeling empowered because of political changes and democratic rights in the post-apartheid society, but having almost no agency in an environment where she or he feels socially, economically or culturally excluded. The dichotomous relationship between feeling agency on the one hand and having very little on the other could cause confusion. A person who is poor not only lacks economic capital, but is usually also very conscious (psychologically) of being without material capital. To be economically impaired could possibly be linked to low levels of self-esteem. The postmodern world consists of these contradictions, and ignoring the interactions between these elements and their causes and results leads to the researcher missing some information.

The third characteristic of a complex system is that the interaction between elements is rich and becomes ever richer in the postmodern world. Cilliers (2000:3) emphasises that “any element in the system influences, and is influenced by, quite a few other ones”. A complex system does not depend on rich interactions between all elements all of the time. An example of this from the research is that, even though the Citizenship project is aimed at changing attitudes, perceptions and expectations through *repeated* community interactions and discussions, it does not mean that multiple exposures would have a greater effect on students than a single exposure. The effects of our actions are mostly unpredictable (Cilliers 2000:123). Researching the unpredictable, one would argue, is impossible, but, as Barnett argues, reality is a super-complex world that is characterised by certain features such as “contestability, challengeability, uncertainty and unpredictability” and we live in an “age in which nothing can be taken for granted”; it is an “age of conceptual and, thereby, emotional insecurity” (2000:415-416).

The fourth characteristic is that the interactions themselves could have certain characteristics. A linear interaction is transparent and not complex. Cilliers relates non-linearity to asymmetry and states that the same “information has different effects on different individuals, and small causes can have large effects”. A complex system by nature is unequal in power relations; Cilliers emphasises that this specific characteristic is the engine for keeping complexity functioning (2000:120).

The relationship between the researcher, students and learners (the sampling) is not symmetrical. The power of the lecturer over students is skewed to such an extent that students could write in their reflections what they think the lecturer wants to hear. This means that the data possibly cannot be trusted and should be taken as constructed and ambiguous. The important aspect that Cilliers (2000) highlights is that power hierarchies should be acknowledged and analysed in research to understand the

dangers of abusing power relations. Because of skewed hierarchies and abused power relations, Deleuze and Guattari (1988) have suggested rhizomatic structures in which factors become 'points on a map' and could operate in a non-hierarchical manner. For instance, researching a multicultural group of students through the Internet and not knowing the persons being researched could reduce established hierarchies and unequal power relations and contribute to more objective analysis of data.

The fifth characteristic is that the interactions have a rather short range. Cilliers (2000:121) explains this by saying that "[e]lements operate on information that is available to them locally". Lyotard (1997:66) describes this process as local determination. Global information is processed in a local context and interpreted and reformulated from a potentially limited local experience. Differences in social memory is one example of how an actual event, for instance during apartheid, has gone through a social system that created many versions of the same event. The same information could be relayed through a different medium in an altered and deconstructed way. The way in which information is perceived also depends on the mental state of the person who interprets the information; we cannot separate knowledge processing from personal life histories. Cilliers points out that, even though the distance is short (reacting to information that is available locally) it could have far-reaching effects (2000:121).

Loops in the interaction constitute the sixth characteristic that Cilliers (2000:121) describes, meaning that "the activity of one element can directly and indirectly influence itself". Information is constantly transformed, not only by other elements in the system (or other people) but transformed in itself (oneself) as well. Cilliers (2000) stresses that, because of this characteristic, it is not impossible to interpret information; information is dependent on and conditional to a certain context and time frame. The citizenship module was designed to be flexible, reacted on because of feedback from students and learners, and changed because of the feedback. My own personal growth in understanding what social transformation involves also influenced the later content of the module. The module became a place of growth through continuous experimentation.

The seventh characteristic is that complex systems are open systems and interact freely with each other. It is difficult to determine the borders of study – the context of political, social or cultural systems is constantly in motion. I, as the researcher, determine the extent of a context; I select certain aspects of political, social and cultural systems and I leave out others. This process is called framing (Cilliers 2000:4). Cilliers (2005:611) also argues for not seeing a border as confining but rather as "constituting that which is bounded", and acknowledging that boundaries cannot be identified completely but need to be revised continually. The problem with rational research methodologies is that they struggle to represent reality and therefore more and more aspects, such as taking into consideration the context and who is doing the research, are brought into, for instance, a case study methodology. When one keeps adding to a methodology it becomes more complex and in the end is not functional. Cilliers recommends (2010)

rather keeping to a simple methodology but realising and acknowledging that it does not represent reality.

“Complex systems operate under conditions far from equilibrium” is the eighth characteristic (Cilliers 2000:122). Complex systems need a constant flow of energy, where the process, and not the origin or goals of the system, is important. Complexity is added in the postmodern world by the overload of information we receive through the mass media. The huge amount of information available when describing the context of a specific case study, for instance, is overwhelming because it is difficult to contain within borders (as discussed earlier) but also because it is in constant motion. The processes involved in researching curricula could be very complex because they are continuously in flux, but this is usually not reflected in the outcome because it is described in simple and reduced terms.

The ninth characteristic is that complex systems have a history that affects the current functions of those systems. The data in the case study were collected within a period of one year. The aim in a case study is also to take into consideration the broader context; what happened before that year and how that history influenced the current data. I myself therefore ‘constructed’ the ‘history’ part, that which happened before the time when the data were collected. I am a product of a system where the Western, Afrikaans canon was exclusively promoted, a system that left out the black African majority. The geographic context of where one grew up was ignored, and colonisers kept their own exclusive knowledge systems in place without allowing the context to influence knowledge production. Even though we live in Africa, African Art was completely ignored in the Art History course at Pretoria University when I studied there from 1982 to 1985. Case study methodology may promote seeing things in context, but a history that ignores huge parts of the context makes it very difficult to see and fully comprehend that context. The Western knowledge system was, and, to a large extent, still is taken as the norm without questioning its normative qualities and functions. Since exclusivity was and still is very much part of a Western mindset (and still is strongly ingrained in my mind, even though I constantly try to reflect on it), the chance of being objective, especially in a South African context, remains minimal. The history that I construct is likely to be more biased because of historical circumstances.

The last characteristic of complex systems is that “each element in the system is ignorant of the behaviour of the system as a whole, and it responds only to information that is available to it locally” (Cilliers 2000:4). According to complexity theory, it is not possible for one element (one person) to fully comprehend the complexity of the entire system, but only to react and interact with local information. The focus is not on a single element but on the system as a whole. Systems such as the political, social, cultural and psychological were used as a lens in the case study investigation to see the broader context, but I, in fact, can only gain my understanding from the information available to me locally. Cilliers (2000:122) remarks that “because of the

overwhelming amount of information available in postmodern society, we live under the illusion that we get the complete picture”.

THE IMPLICATIONS OF COMPLEXITY THEORY IN A CASE STUDY METHODOLOGY FOR IMPROVING CURRICULA

The content and the teaching and learning of a curriculum do not exist in a vacuum but are contained within a certain context. The content could also be regarded as a reduced version of the complexity that exists. The context in which the curriculum exists is made up of many complex systems such as political, economic, social or cultural. It is exactly in the context that the hidden curriculum (Apple 1979) positions itself. But Smith (2000) argues that in regarding curriculum as a contextualised social process, the concept of hidden curriculum becomes unnecessary. Representing the full complexity of the context is problematic and therefore it often remains hidden. When aiming at improving curricula, complexity theory as a lens could therefore be valuable.

The 10 characteristics described above give an idea of how data analysis for improving curricula could be approached differently. Haggis (2008:167-168) suggests four aspects of complexity theory that could be beneficial for the analysis of data in social research. Firstly, because interactions are interconnected and the relationship between factors produces effects, causality cannot be reduced to limited numbers of subthemes and themes. Secondly, the system as a whole (without reductions) should be studied or represented in terms of its interactions and compared with other systems. There are systems within systems and the borders of the case study (or curricula content) defined by the researcher exist within other systems. Thirdly, because of untraceable multiple interactions, unpredictability needs to be highlighted and incorporated when researching or constructing curricula. Fourthly, systems have coherence in the sense of identity, but because they are in constant flux over time, it is difficult to give the identity a boundary. Coherence, then, is not a structure that defines a system, but the processes that continue within the system itself.

When addressing real issues in society, it is important to understand that there are no simple, absolute answers to complex problems. Mendel-Reyes (1998:37) refers to Rhoads, who observes that there are few definite answers to the most pressing questions facing communities, and that negotiation or co-operation between institutions and communities becomes crucial when taking into consideration the complexities of issues. Postmodern society is complex. There is no reason why we could not acknowledge it as such, and aim to apply that knowledge to what we do and aim to understand. What complexity theory does is to explain the dilemma in which we find ourselves, the dilemma of being unable to fully represent reality. The case study methodology used to improve curricula is not complex because it is linear and it aims to define its own borders. What the case study aims to investigate is often very complex; such as a curriculum in context. That is why, according to Haggis (2008:162), the results of a case study are often very vague, because there is no clear answer to such complex

questions. A complex situation would require a complex answer. Horn (2008:130) therefore argues for “coarse grained” methodologies to include more speculative interpretations to accommodate complexity.

When researching curricula, ethnographic approaches aim to operate from ‘within the system’ instead of ‘from above’. Cilliers (2000:123) encourages “entering into the agonistics of the network” to see from within to enable better understanding. Haggis (2008:172) suggests that researchers should be positioned within the “dynamic interacting system of multiple elements” where each individual participant in the research with an own internal subsystem is seen as an element of a system with a history through time (see example in Figure 16.3). Different types of connections and generalisations could then become possible. An example from Haggis (2008:172) suggests that, instead of a case study of an individual that is generalised to other people, the case study could be of one person during a certain time compared to the “history and evolution of factors within that person’s life”; instead of comparing curricula in different contexts, rather comparing different developments of a specific curriculum in different time frames.

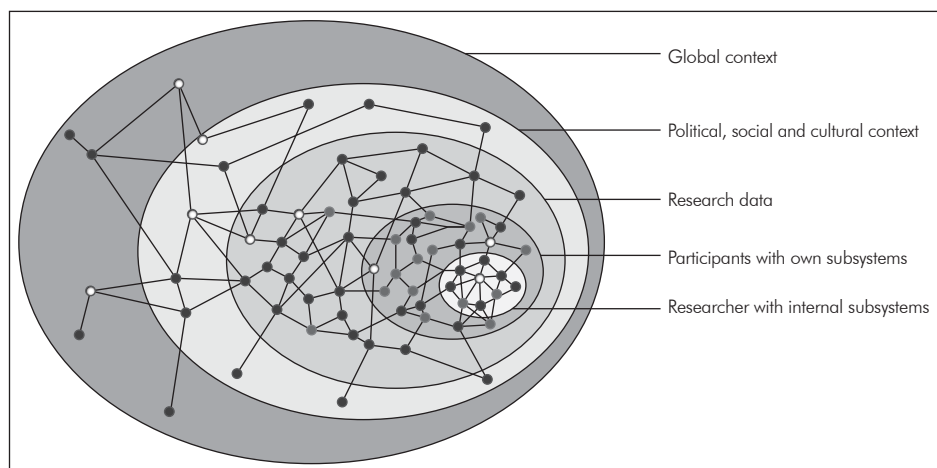


FIGURE 16.3 A representation of curriculum research with the researcher positioned within the context (adapted from Haggis 2008:171)

Not selecting a small number of important elements and grouping them together feels like a messy, confusing business; it is unorganised and unclear and resembles dwelling in the unknown. Realising and acknowledging the fact that the amount of elements involved in the research is too complex to comprehend, and being aware of the constant need to compartmentalise information is important, especially to the Western frame of mind. The process of “becoming to know” that Barnett (2008) discusses, relates to a space where we are constantly in a state of becoming and not

in a place of knowing. Fenwick (2010) refers to Lather, who suggests “getting lost” and dwelling in the will not to know. Horn mentions Axelrod and Cohen (1999:45, cited in Horn 2008:139), who say that “harnessing complexity involves acting sensibly without fully knowing how the world works”. Fenwick (2010) also refers to information that should aim to be non-authoritative, relating to information that is not exclusively selected but includes even the seemingly unimportant parts, because one element or issue could have a huge effect on many other issues. Barnett (2000:409) argues that super-complexity could offer “completely new frames of understanding ... to help us comprehend and make sense of the resulting knowledge mayhem; and to enable us to live purposefully amid super-complexity”. He also suggests that, in an “age of super-complexity, a new epistemology for the university awaits, one that is open, bold, engaging, accessible, and conscious of its own insecurity. It is an epistemology for living amid uncertainty” (Barnett 2000:409).

After considering complexity in relation to case study methodology, one could ask where this leaves us. Seen from a research point of view, neither of the two systems, the case study or complexity theory, provides the answer. A case study tends to approach reality too simplistically; and complexity is too complex to use as a methodology. Barnett (2000:409) argues that “[k]nowledge, as a pure, objective reading of the world does have to be abandoned”. Cilliers (2010) subsequently suggests that a case study methodology should be used in an integrated way; conducting a case study but understanding that it is a partial view. Where does it leave us after having aimed to comprehend complexity? – according to Cilliers (2010), in a very modest space.

Implications for the Visual Communication Design curriculum

My suggestion for the Visual Communication Design curriculum would be to integrate complexity theory with research methodologies used in ventures such as the Citizenship module to understand the context of research into a curriculum more holistically. Complexity theory could be used to allow a broader perspective when analysing data in curriculum research and to widen one’s own view to find new ways of representing the world in a more realistic and not reductionist manner.

To enable better research, I also need to improve the epistemological way in which I view the world, and complexity theory could be a vehicle to achieve a more holistic view. ‘Holistic’ could refer to non-authoritative information (Fenwick 2010) and acknowledging the diversity of information without subjective selection. Transformation is needed in social realms as well as in the individual realm. This refers to changes in perceptions and attitudes required in people, not only policy changes in society. A critical examination of one’s own “overt and tacit political commitments, and one’s own embodied actions ... in all its complexities and contradictions” (Apple 2010:661) is required. The extent to which curriculum researchers in South Africa are able to think holistically is questionable, however; we ourselves are products of an unequal past and are all “carriers of troubled knowledge” (Jansen 2009:258).

Nussbaum (2002) describes the ability to imagine oneself in a different situation as the “narrative imagination”. Pihlanto (1994:380) says that “not only actors but even researchers create their own world and interpret what they observe in empirical reality”. To construct a historical context that you have not experienced yourself needs some imagination, and to imagine a different world to the one that is known means opening up to other possibilities. Smolucha and Smolucha (1989:1) describe critical thinking as a “psychological system that involves the collaboration of several higher mental functions including memory, conceptual thought, analysis, synthesis, evaluation, and even *imagination*” [my emphasis].

Though we cannot construct a realistic picture of the world with case study methodology to improve the curriculum, we could aim to construct it better with the help of complexity theory. To construct a world different from the one that we know and experience, we need to think outside the confines of our normal box, and to enable that construct we could follow a creative process. Figure 16.1 presents the elements or factors involved in the case study. These factors are distributed randomly and all have equal weights because they all have the potential to influence each other to various degrees. “Small causes could have large results” (Cilliers 2000:4) and each element could also have an effect on itself. Each of these factors could connect and become a new or different perspective. In a typical creative process, many concepts are generated (the more concepts generated the better the chance of finding a good one), followed by connecting points randomly to force new meanings. Looking at the other side and finding what you are not looking for becomes an exploration of different perspectives.

Figure 16.1 presents an example of a creative process involving random connecting points and forcing new meanings. It relates to the rhizome concept of Deleuze and Guattari (1988), which proposes theory and research that allow for many, non-hierarchical entry and exit points in data interpretation. The rhizome concept opposes totalising principles that work with dualist groupings and binary oppositions. In these rhizomes, everything can be linked to something else, also linking things that have nothing to do with one another. Eco (1984) refers to a labyrinth or net-like structure of meaning that is interconnected, open in every direction and exposed to continuous modification over time. Wittgenstein (1958) prefers the rhizome model of thinking and uses a similar concept that he calls “family resemblance” to demonstrate that concepts that seem to be connected by one common feature may also be connected to multiple sequences of similarities.

As an alternative to a reductionist case study approach, a new data analysis was followed by which all the factors identified in the data (Figure 16.1) were used in the analysis of the Citizenship module. It remained a reduction, but including all the factors allowed more variations in understanding and resulted in broader interpretations of the data. In this approach all the factors were investigated and meanings started to emerge when factors were connected and the relationships between factors explored.

The interconnected analysis and interpretations of the data, when written up, contained various short narratives in which multiple results with their conclusions were formulated. This relates to Barnett's conception that "... [w]hat counts as truth and knowledge are open, as knowledges multiply and as frameworks for comprehending the world proliferate. In the end, all we have is proliferating stories of the world" (2000:420).

CONCLUSION

This chapter has described the process that was followed after I realised that a case study methodology for analysing complex data in a Citizenship module aimed at changing perceptions and attitudes for social transformation was insufficient. I then explored alternative means of analysis. In a complex environment, I believe, complexity theory could be an important lens to assist in analysis for curriculum inquiry. The purpose of the investigation was not to replace the case study methodology, but to see how it could be combined with complexity theory. Complexity theory offers viewpoints that enhance the possibility of representing a complex reality.

Case study methodology reduces information to chosen themes and subthemes, and, in so doing, misses the relationships between factors. Such data reduction was found to be limiting in curriculum research and development. Focusing on relationships between factors means that the effect of the interactions is more important than the reasons for interaction. However, it is practically impossible to describe the relationships between all factors identified in the research. In our investigation we could compromise by using a methodology such as the case study by which information is reduced, in the full knowledge that it is partial and unable to represent real complexity. If one tries to represent the complexity in a case study, one often achieves vague outcomes. To allow for the impossibility of capturing and describing reality accurately, research should allow more space for broader interpretations and narrative constructions. An alternative data analysis process that includes many factors (as in Figure 16.1) that represent the world in a more realistic and holistic manner is suggested. Seeking the relationships between factors could help us find multiple and possibly more accurate solutions to problems.

The specific implication for the Visual Communication Design curriculum is that complexity theory could be incorporated into research projects. On a more general level it could enhance the self-reflection of students and lecturers in the teaching and learning environment. The creativity and imagination that have already developed in a visual communication design course could be further explored and incorporated in research projects to develop the ability to imagine oneself in the shoes of others, and imagine worlds that are not known or have not been experienced. Imagination can be used fruitfully when forcing connections between random factors in a complex system to create new meanings that have the potential to enhance curriculum research and curricula.

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17

A SMALL-SCALE CLASSROOM RESEARCH APPROACH TO CURRICULUM RENEWAL

Mariette Koen

INTRODUCTION

Ross argues that the term curriculum can be interpreted as the organisation of desired learning experiences and that it represents a guide to lecturers of what is to be taught in specific institutions (Ross 2000:8). Challenges to organise such learning experiences in order to optimise teaching and learning opportunities are nothing new. Over the past decades universities have experienced increasing pressure from government, stakeholders and employers to design programmes that prepare graduates for today's competitive working environments. In Chapter 1 of this book, Bitzer confirms this issue by outlining the need for a systematic and scholarly approach to curriculum inquiry as a measure to address academic achievement demands and to keep curricula relevant and effective.

Stefani (2009:40) adds that the way a curriculum is designed will influence the way in which students approach their learning. It is therefore not surprising that South African teachers in higher education are constantly reminded to measure the effectiveness of their programmes in order to enhance student learning. A practical challenge is thus how to design a curriculum in the current accountability environment, one that provides students with authentic learning experiences in which they are provided with opportunities to demonstrate skills, knowledge and values required for their future professions.

Assessment, teaching and learning are key elements in a curriculum and consequently also in the pursuit of quality education. Cowdroy and Williams (2007:89) explain this close relationship by arguing that the way in which lecturers lecture will determine how their students will be assessed. In the current climate of promoting lifelong learning, scholars emphasise that assessment should not be viewed as something separate from teaching, but rather as a process aiming to develop students' ability to reflect in order to enhance their own motivation and commitment to learning (Marriott 2009:252). In fact, Race and Pickford (2007:107) maintain that assessment is "the engine which drives student learning". James, McInnis and Devlin (2002:11) support this notion

by arguing that well-designed assessment tasks set clear expectations, establish a reasonable workload and provide opportunities for students to self-monitor, rehearse, practise and receive feedback.

But do students always benefit from assessment? This is one of the key questions Shay (2008:603) asks when investigating the promising role of assessment as a catalyst to enhancing student learning. One can therefore surely argue that lecturers need to investigate curriculum practices in order to reconsider assessment methods for the improvement of teaching and learning. This chapter aims at addressing this issue by referring to a small-scale curriculum inquiry as a plan of action to organise teaching and learning activities in one higher education classroom. The reported research stresses the importance of taking account of students' perceptions and it articulates how dialogic inquiry can be a tool to develop a deeper understanding of assessment aiming at pedagogical improvement.

SCOPE OF THE STUDY

Since the comprehensive research of Black and Wiliam (1998), assessment has become a central theme in the higher education environment and has been the source of various studies. A key finding in their study was that students must be able to grow from being passive receivers of knowledge to being active participants who are able to construct knowledge and take responsibility for their own learning. My studies in the field of higher education, in particular, inspired me to investigate this complex issue in a Life Skills course, in a faculty of education.

But why renew a curriculum? One could contend that designing an effective curriculum requires continuous monitoring, evaluation and modification. In this regard Carl (2009:59) states that "curriculum development is a never-ending process" as lecturers continuously aspire to improve teaching and learning. The purpose of my study was to explore assessment in a Life Skills programme in an attempt to investigate the issues that influence the quality of student learning and to formulate plans to address the said issues.

CONTEXT OF THE STUDY

Life Skills is currently one of three learning programmes (the others being Literacy and Numeracy) in the Foundation Phase and consequently one of the modules in the BEd programme at the University of the Free State. Shay and Jawitz (2005:104) reason that assessment is considered to be a powerful influence on what and how students learn. This idea suggests that assessment of a Life Skills module should provide education students with a variety of opportunities to demonstrate their learning. It is therefore open to debate whether handwritten, one-hour examinations do indeed stimulate students to learn and develop the requisite knowledge, understanding, attitudes and skills for their future work. In this regard Beets (2009:186) explains that reflexive, foundational and practical components are necessary to empower students with the required skills to apply knowledge in both familiar and unfamiliar situations.

In order to explore the complex issue of assessment in the Life Skills classroom, a qualitative case study design, employing semi-structured interviews and focus groups, created the opportunity to explore – through a variety of lenses – how final-year BEd Foundation Phase students dealt with assessment issues (Baxter & Jack 2008:544; Fraenkel & Wallen 2008:431). Although it would be interesting to know how many students felt positive or negative about assessment, the intention with this qualitative inquiry was to focus on the richness of the responses in this particular social context. It would not be possible to ascertain this by merely using only numbers and statistics (also see Basit 2003:152). This small-scale study, premised on an interpretivist paradigm, allowed me to interact closely with participants in order to gain insight into and an understanding of specifically the meaning of assessment in a particular curriculum (Henning, Van Rensburg & Smit 2004:20).

DATA-COLLECTION METHODS

The study was conducted during the first and second semesters of 2010 and generated large quantities of data from multiple sources, such as focus groups, semi-structured interviews, open-ended questionnaires, quality-assurance documents and a literature review. As suggested by Wellington (2000:133), the data were organised systematically in order to prevent my becoming overwhelmed or losing sight of the original main research question that was formulated as: “In what way can assessment enhance learning in the Life Skills classroom?” All students attending lectures or participating in the Blackboard learning system were invited to participate in the research. Not only students but also lecturers were invited to participate in semi-structured interviews. Some lecturers had experience in Life Skills assessment while others added a new perspective to assessment in the Life Skills classroom by reflecting on their own assessment in their specific field of expertise.

Triangulation was used to capture a more complete dimension of the assessment issue. Triangulation entails the borrowing and combining of different approaches in order to confirm and improve the clarity or precision of a research finding by building a more comprehensive picture of the methods, methodological perspectives and theoretical viewpoints (Flick 2004:178; Flick 2009:444; Henning *et al* 2004:133; Lewis & Ritchie 2003:275; Robson 1993:383). However, Perone and Tucker (2003:2) warn that this process should not merely entail combining data in different shapes. To me it was important that the use of triangulation should rather address different levels of the same problem and reveal varied dimensions of a particular teaching-learning situation. In this way it could contribute to supplying the pieces to a puzzle (Flick 2009:448-449). Flick (2009:444) suggests that the following guiding questions should be the points of reference for deciding to use triangulation:

- Are there different levels of information that I need to collect to understand the issue under study?
- Can I expect my participants to be exposed to several methods?
- Does my research question focus on different aspects or levels of the issue?

Because the answers to the above questions were all 'yes', it seemed that, in this particular study, data triangulation could indeed be used productively by combining the different sets of data in order to improve understanding.

ETHICAL ISSUES

Kvale (1996:110) emphasises that ethical considerations do not belong to a specific stage of research, but are relevant throughout the entire process. Ethical considerations are therefore of the utmost importance so as to respect and honour participants. The ethical considerations in this study were based on the following aspects of the guidelines suggested by Fraenkel and Wallen (2008:63-65) and Henning *et al* (2004:73):

- Informed consent. Care was taken that participants fully understood the purpose of the study and were reminded in writing that participation was fully voluntary.
- Anonymity. Participants were assured that all information would be treated anonymously and that they would not be identified at any stage of the research.
- Confidentiality. Participants' right to privacy was acknowledged and all the interviews were conducted in a relationship of trust and transparency.
- Right to withdraw. Participants were assured that they would have the right to withdraw at any time during the research and would not be disadvantaged in any way.
- Ethical approval. Ethical approval was also officially obtained from the relevant department.

VALIDATING THE RESEARCH

It is well known and widely accepted that trustworthiness is of the utmost importance in any qualitative research and qualitative researchers are often criticised for their lack of rigour and are even regarded as unworthy of entering into the "magic circle of evidence" (Robson 1993:402). Lincoln and Guba (1985:294-301) demonstrated how qualitative researchers could persuade the reader to accept the findings of a study by proposing a scientific construct parallel with trustworthiness. Application of this model was done in the following way (see Table 17.1):

TABLE 17.1 Application of Lincoln and Guba’s model for trustworthiness

Criterion	Explanation	Application
Truth value Credibility	<ul style="list-style-type: none"> ▪ Credibility can be explained as confidence in the truth of the findings and is regarded as being parallel to internal validity (Miles & Huberman 1994:278). The focus is on establishing the match between the constructed realities of participants on the one hand and those realities as represented by the evaluator and attributed to various stakeholders on the other (Crawford, Leybourne & Arnot 2000:1-5). ▪ Credibility can be verified by prolonged engagement, persistent observation, triangulation, member-checking and peer examination. 	<ul style="list-style-type: none"> ▪ Credibility in this study was enhanced by means of triangulation and peer examination. All the participants were briefed about the focus of the study and they expressed their willingness to participate in the research. All the participants gave their consent to the recording of the interviews. Data were provided to participants to check and to verify interview data. As a verifying measure, all notes were fleshed out by the researcher immediately after each interview had been conducted.
Applicability Transferability	<ul style="list-style-type: none"> ▪ Transferability signifies that the findings have applicability in other contexts and can be described as being parallel to external validity or generalisability (Miles & Huberman 1994:279). This is relative and depends entirely on the extent to which salient conditions overlap or match (Crawford <i>et al</i> 2000:1-5). ▪ Transferability can be established by nominated sample, comparison of sample with demographic data and thick description. 	<ul style="list-style-type: none"> ▪ Transferability was enhanced by means of a dense description of the data and by maximising the range of information that could be obtained from and about the assessment context by purposeful selection of participants.
Consistency Dependability	<ul style="list-style-type: none"> ▪ Dependability is parallel to reliability and is likewise concerned with the stability of the data over time (Miles & Huberman 1994:278). Researchers need to be able to demonstrate any changes or shifts in how the inquiry was conducted (Crawford <i>et al</i> 2000:1-5). ▪ Dependability can be established by dependability audit, dense description of research methods, stepwise replication, triangulation, peer examination and the code-recode procedure. 	<ul style="list-style-type: none"> ▪ Dependability was promoted by means of an audit trail of processes, for example the data-gathering process, which was done by means of the multiple sources of data methods and data collection. The data tracing also indicated that there was an ongoing meta-evaluation and critical reflection and allowed others to trace data throughout the research process.
Neutrality Conformability	<ul style="list-style-type: none"> ▪ Conformability is described as being parallel to objectivity (Miles & Huberman 1994:278). It is the need to show that data, interpretations and outcomes of inquiries are rooted in contexts and persons other than the evaluator and not simply figments of the evaluator’s imagination. All data must be traceable to their source and the logic used to assemble the interpretations into structurally coherent and corroborating wholes must be both explicit and implicit in the narrative of the case study (Crawford <i>et al</i> 2000:1-5). ▪ Conformability can be verified by conformability audit, triangulation, audit trail and reflexivity. 	<ul style="list-style-type: none"> ▪ Conformability was similarly enhanced by means of a degree of neutrality where the findings were shaped by the participants’ perspectives and not through research bias. Trustworthiness was enhanced by recording interviews and transcribing them verbatim so as to ensure an accurate reflection of the participants’ views.

Throughout the study the aim was to construct the research soundly, to use the correct measures to conduct the research and to establish a chain of evidence both forward and backward in order to prevent subjective interpretations.

CONCEPTUALISATION

It has already been argued that assessment, teaching and learning are key elements in a curriculum and consequently also in the pursuit of quality education. Stefani (2009:40) emphasises that how we think about teaching and learning will influence how we plan assessment activities. Yet authentic assessment tasks that facilitate learning imply both knowledge of assessment and an understanding of students' needs.

Despite a number of theories that have been advanced to explain how assessment can be implemented in a curriculum, it is no simple task merely to translate this assessment knowledge into student learning. The multiplicity of assessment purposes is a problematic issue and there are no simple answers to how assessment can be used to enhance learning. The aim of this study was to explore student learning from an assessment perspective. It was hoped that an understanding could be developed of students' perspectives on assessment and that insight could be gained on ways to enhance learning in the Life Skills Education classroom. These ideas could, in turn, be helpful during the monitoring, evaluation and modification of a Life Skills curriculum.

The conceptual framework for this inquiry was mainly drawn from Race's 'spreading ripples' model of learning (Race 2001). Biggs (1999, cited in Albon 2006:103) reminds us that the starting point in designing authentic assessment strategies is to understand how learning occurs and Race's model offers a theory in which four main overlapping factors feature. It was believed that interrogating Race's learning theory and the qualitative data could provide suggestions on how the three elements, teaching, learning and assessment, could interact in a Life Skills classroom.

RACE'S 'SPREADING RIPPLES' MODEL

The underlying premise of Race's theory is that the most effective form of learning consists of the continuous effect (like the ripples on a pond) of four elements: wanting (needing), doing, feedback and digesting. Race (2001:11) argues that a human brain does not work in either a linear or pre-programmed way all the time, but rather operates at various overlapping levels when, for example, making sense of ideas. From this perspective Race (2005:26) contends that these elements are in dynamic interaction, affecting one another, and they occur more or less simultaneously (see Figure 17.1).

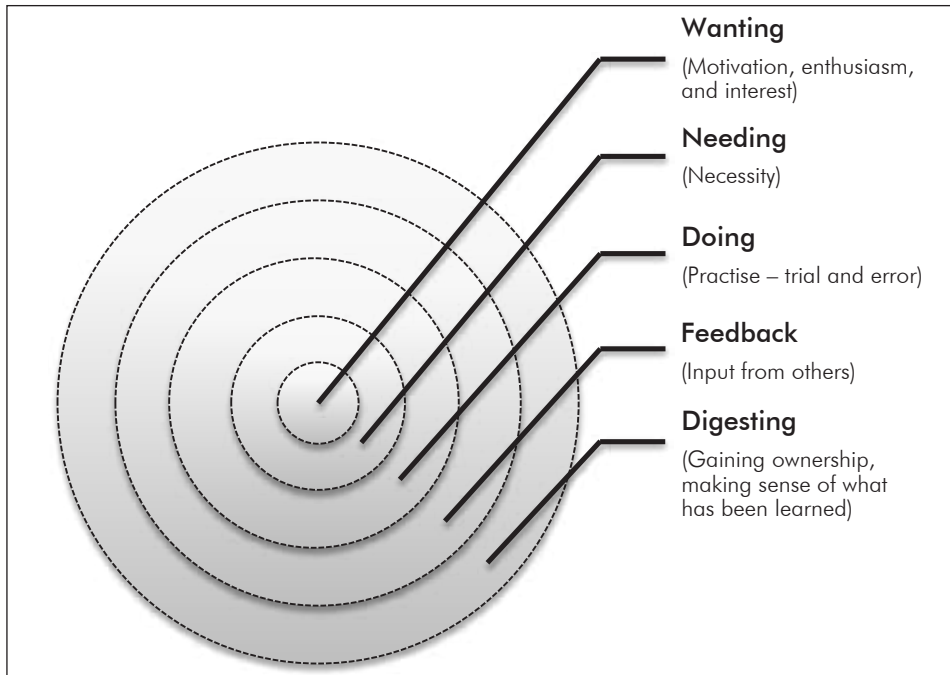


FIGURE 17.1 Race's 'spreading ripples' model of learning (adapted from Race 2001:28)

Figure 17.1 shows that wanting/needing to learn is placed in the centre of things as it is a powerful source providing the energy that makes a student want to learn something in the first place (Race 2001:9). This leads to the belief that learning can be initiated by the bounce-back ripples through doing, making sense, providing feedback and understanding. The problem that we face is that assessment is a sensitive issue in that it is closely integrated with motivation (Harlen 2006:62; Harris 2007:259). Bloxham and Boyd (2008:20) argue that most students experience some stress if lecturers talk about assessment and, depending on the way it is implemented, it can unfortunately often work against rather than for learning. When students begin to compare themselves with others, assessment becomes tied up with a social and emotional experience that can influence their motivation and self-esteem. Students who believe that they lack ability will become unmotivated to learn as they fear failing. They will "retire hurt" and avoid further effort in learning because of the belief that their efforts will only result in disappointment (Black & Wiliam 2001:6).

Integrating assessment into the 'doing' ripple involves a much broader perspective than what Broadfoot (2007:119) coins as the "conventional empty vessel perspective". Broadfoot explains that assessment does not imply that a lecturer merely deposits knowledge in the student's mind and then checks whether the student is able to retrieve such knowledge by testing lower-order cognitive skills. Assessment should rather engage students in worthwhile educational experiences by providing them with opportunities

to take an active role in learning, to master autonomy and to develop self-efficacy (Cauley & McMillan 2010:6; Garrison & Vaughan 2008:16; Race 2001:12).

Gijbels and Dochy (2006:399) argue that successful functioning in society demands authentic assessment methods in which students are given the opportunity to apply their knowledge in authentic representations of real-life problems and to develop conceptual understanding. Harris (2008:59), however, points out that physical participation does not guarantee students' cognitive engagement. Linnenbrink and Pintrich (2003:124) contend that learning should not just be 'hands on' but also 'minds on', arguing that students ought to think deeply, critically and creatively about the content and should know how to use a variety of strategies to increase their understanding of the learning material. This process involves the students' perceptions of academic competency and may guide their behaviour (Walker & Greene 2009:463). Here, meta-cognitive skills play an important role as they are necessary aspects of reflecting on actions and regulating learning.

Gaining understanding or making sense of what is being learned is a key factor underpinning successful learning and forms an important aspect of the 'digesting' ripple. Race (2005:26) defines this important process as digesting or "getting your head around it". Digesting knowledge involves more than observation or the mere reflection of information; it rather refers to a sense of ownership (Race 2007:9). A central feature of the knowledge-construction process involves the idea that students take responsibility for their own meaning making where nobody else can do it for them. Digesting can therefore be described as an intentional action when students identify the important aspects of what must be learnt and discard what is unimportant. This action involves time to reflect and to communicate own progress while linking it to the feedback, doing and learning (Race 2007:248).

Following from these points, it can be argued that programmes should not only provide students with opportunities to experience success but also with opportunities where feedback can guide them as to what to improve. Feedback to students comes from different directions, which can cause the ripple to move back into the centre and create some motivation. It furthermore has the potential to advance student learning because it allows students to recognise areas of deficiency in their knowledge and helps them to plan for future learning (Crisp 2007:572; Nicol & Macfarlane-Dick 2006:200; Perera, Lee, Win, Perera & Wijesuriya 2008:395; Rodgers 2006:219). Feedback can thus stimulate the whole learning ripple and, ultimately, it may encourage the 'digesting' stage. It is no wonder that scholars often refer to feedback as the oil that makes the assessment engine run, or as Pickford and Brown (2006:13) put it, feedback "lubricates the cogs of understanding".

Scrutiny of Race's 'spreading ripples' model revealed the importance of providing opportunities in the curriculum to achieve the following distinct purposes of assessment: assessment should inspire students by encouraging engagement in learning, it should

provide opportunities to think critically and to reflect over time, and it should entail meaningful feedback.

THE QUALITATIVE INQUIRY

Brown, McInerney and Liem (2009:4) maintain that much attention has been paid to the ways in which assessment can be used to improve learning as opposed to simply being used to evaluate learning. Although the idea of student-centred learning makes sense, these authors find it strange that so little attention has been focused on the perspectives of students – the very people who are supposed to do the actual learning. Solis (2003:10, 11) agrees that student perspectives are often overlooked and that researchers lack students' input when investigating assessment. Bearing the foregoing in mind, students' perspectives might be considered when planning a curriculum-renewal endeavour. The interpretive qualitative approach thus allowed me to explore how participants make meaning of their assessment experiences in the Life Skills module and to discover meaningful patterns from these perspectives. The main categories that emerged during the course of the coding process are the meaning of assessment, engagement in learning, and feedback.

Meaning of assessment

Written and oral examinations have existed for centuries – from the early Chinese examinations, through public presentations by students of Aristotle, to the universal examinations of the past century (Earl 2003:5). Braskamp (2005:75) believes the word 'assessment' to be derived from an idea important to educators: one of sitting down beside or together, these in their turn derived from the Latin words *ad* and *sedere*, which brings to mind verbs such as to engage, to involve, to interact, to share or to trust. From the above definition one can interpret the idea of 'sitting beside' in the Life Skills classroom as a communication process between the student, the lecturer and the curriculum designer. Such a communication process implies that if lecturers perhaps know how students feel and experience assessment, surely then they can be helped to make the connection between the purpose of the assessment and the assessment task.

Some participants described the examination experience as "definitely negative", while others regarded it to be an effective assessment method:

We want to write exams.

Yes, an exam is effective.

In contrast, Jansen (rector of the University of the Free State) questioned the validity of a formal examination as the only assessment method when he recently stated that formal examinations place too much pressure on students and proposed a system in which students should be evaluated throughout the year by using a variety of methods to assess academic proficiency (Coetzee 2009:11). Maclellan (2004:314) elaborates by arguing that assessment should be implemented as an educational tool that helps

students to take an independent, active role in their learning and develops their cognitive abilities of thinking, reasoning, planning and decision making in the service of solving real-life problems. One wonders whether formal examinations always fulfil this role. It seemed necessary to probe whether participants' perspectives of examinations as 'effective methods' reflected this particular understanding. A closer look at the reasons behind the statements revealed that some participants may indeed have interpreted the 'effectiveness' of examinations in terms of a time-management tool, rather than in terms of the conceptual understanding of the content. One participant explained:

I uhm ... I uh had like 11 subjects this semester and to put a lot of effort into every single lecture takes a lot of time, and in a term you don't really have that, where in the exam you can focus [on] only one ...

Other comments furthermore lead one to believe that some participants regarded studying during examinations as the mere regurgitation of facts and not necessarily as an educational tool for self-regulated learning, for example:

You only learn nonsense. And you forget it.

But you often also learn like a parrot.

This then begs the question how assessment can be implemented in a programme to entail more than the mere memorisation and reproduction of factual knowledge. In attempting to answer this question, the next section will explore how assessment can be integrated into Race's 'spreading ripples' model of learning by focusing on motivational, behavioural and cognitive engagement and thus preparing the teacher for the school classroom.

Engagement in learning

According to Crick (2007:137), the education system needs to foster flexible learners who are able to extend their learning and understanding beyond the classroom. This principle was implemented by exposing students to unfamiliar assessment opportunities through blended learning, a research project and community service. A number of issues emerged when the data were analysed. Some students pointed out some advantages of mobile learning, for example having the flexibility to have access anytime and anywhere, and being able to work independently and to receive immediate feedback. Others complained about the cost, the small screen and technological problems related to incompatible phones. Mobile learning and assessment activities, however, forced students to engage in the learning process before, during or sometimes at the end of a lecture, as one participant indicated: "This forced me to spend time going through my work before class."

Blackboard assessment activities provided students with opportunities to explore ideas, to rectify mistakes, to question perceptions and to construct meaning from information. This developmental value of formative assessment is highlighted in the following

remark from a participant explaining that students could go back and improve before receiving a final mark: “There are also enough activities to increase your semester mark and you not only have to do rote learning, but also to apply the knowledge.” It also appeared that students placed high value on learning while in a real classroom context. The following comments captured this view:

I think ... because it puts you in that situation ... Because it is easy just to read in a book what is out there, but if you physically see it, then you can realise: OK this needs to be done and OK then we can do this and do that.

It’s not just about knowledge. You learn to use knowledge and skills. If you land in a situation, you have to learn to handle it; you have to be able to apply it.

I think it better teaches you to think on your feet.

Students were presented not only with online case studies to apply the ‘knowing’ and the ‘doing’ simultaneously, but also with authentic learning experiences in the form of a research project and a community service project. These assignments demanded higher-order thinking such as diagnosing, problem solving, explaining and decision making. The integration between cognitive and behavioural engagement became clear when a student noted that “you are physically there ... and you realise this needs to be done”.

Not only did the community project expose students to authentic experience but they were also given an opportunity to engage in problem solving, teamwork, communication and self-regulated learning as they had to plan and organise the project, work together and write a report by integrating a literature review with the practical application. Some students included a photo-shop CD to explain the project visually, meaning that technological skills were also stimulated. During the focus-group discussions the informants were asked whether they thought that Life Skills education had in fact changed some of their attitudes. Although some students answered this question, they were not convinced that Life Skills had influenced their attitudes regarding certain aspects. However, at the end of the second semester students clearly indicated that personal growth had occurred. One student said:

Giving is certainly one of the most enriching experiences. No amount of money can buy such experiences. Meaning something to your community engenders personal growth. Thank you for this opportunity to make a difference.

Participants’ comments indicated that involvement in a real-life community would indeed motivate learning as students became highly motivated when they realised that their efforts could make a difference. Following from these observations one can state that assessment activities should be considered carefully when planning a curriculum. Assessment activities can therefore be implemented to extend student learning beyond the higher education classroom into a school classroom in which personal growth and the development of a sense of caring towards others are fostered.

Feedback

Research emphasises that feedback has the potential to advance student learning because it allows students to recognise areas of deficiency in their knowledge and helps them to plan for future learning (Crisp 2007:572; Nicol & Macfarlane-Dick 2006:200; Perera *et al* 2008:395; Rodgers 2006:219). Although the expectation is that feedback should enhance student learning, it often seems as if students focus on their marks only and ignore the lecturer's feedback, especially if they interpret the feedback as being negative. Meyer (2009:215) explains that learners in South African schools often experience summative assessment as the dominant mode of assessment and therefore students at university are often unable to recognise the value of formative feedback and "may even be traumatized by the presence of so much ink on the page". Feedback can thus, on the one hand, empower the student; on the other, it can impede learning.

Students need prompt feedback because the longer the delay, the less likely it is that they will find it useful or be able to apply the suggestions (Freeman & Lewis 1998:49). Research emphasises that the most effective feedback is immediate, specific and according to specific criteria (Organisation for Economic Co-operation and Development 2005:3). One can thus argue that frequent and timely feedback increases motivation and tends to motivate students to engage in learning. Participants articulated this idea in the following responses:

Now you have to balance the time of feedback. Timing of feedback – which is so crucial.

So I think the most important thing for me is that it must be given as quickly as possible.

The value of written feedback to students lies in their being able to read both the diagnosis of their errors and the suggestions on how to improve. They can always go back to reread the feedback and reflect on it again. Whereas written feedback can often be cryptic, oral feedback offers an opportunity of elaborating more in the form of detailed comments. Here, the feedback language can play a critical role. The challenge however lies in the purpose of the feedback in that the feedback must be educative. It is possible to argue that the focus should neither be on whether the feedback is written, or oral, or on the amount of commentary, but rather on what the students do with the feedback. The idea that feedback should be an indication of encouragement is reflected in the following remarks:

And this means even more to me ... And that meant a lot to me because I studied hard and even now that I did not get a distinction, I still tried and it was still appreciated.

Then I feel rather good. Then I at least think someone is noticing your hard work.

The nature of the feedback is however not as important as the fact that the students understand and use the feedback and moreover believe that the feedback will tell

them how to improve. It is evident that students will tend to be more inspired to learn if they believe that the feedback can help to improve their performance. It is important, therefore, that students recognise the purpose of the feedback and that they interpret and apply the suggestions in order to close the gap between their current level of performance and the expected learning objective. This idea is reflected in Harris's idea (2007:257) that students need to know precisely what and how they will be assessed in order to be successful. Participants agreed that feedback had to be given in accordance with the assessment criteria. In addition to this idea, one could make a case that the focus should rather be on feeding forward instead of only feeding back. 'Feed-forward' can be explained as providing the student with the ability to close the gap between the areas of deficiency and how to remedy these. Through this act students monitor their learning process, which will enable them to become reflective, self-directed and self-regulated learners. In other words, it is important that students distinguish between feedback and feed-forward and not merely focus on what has already been done in order consciously to build upon their strengths as the work progresses. In the final analysis, the idea emerges that feedback will only be effective if students pay attention to it, believe it and use it.

IMPLICATIONS OF THE STUDY

If we therefore consider assessment to be inextricably part of the curriculum and to be at the centre of a student's learning experience, it is interesting to note, from the data analysed, that in reality lecturers and students can indeed have differing understandings of the role of assessment in learning. It follows that lecturers need to be mindful of how students feel about and experience assessment when designing assessment activities as part of a curriculum: first, to ensure a connection between the purpose of the assessment and the assessment task itself; and, second, to prepare students for their future professional roles.

Perhaps a shift in thinking about assessment is required at the interface between teaching (lecturing) and learning so as not to get fixated on the assessment method *per se* but always to bear in mind the underpinning purpose – namely that of promoting student learning. Based on Race's 'spreading ripples' learning model, this study has highlighted how assessment and learning can co-exist, complement and support each other in the Life Skills classroom. It therefore seems as if one ought to shift the focus from the divide between assessment for and assessment of learning to one that finds ways to integrate assessment into learning while empowering students to move forward in their learning. Perhaps, by using these methods in tandem in the Life Skills classroom one can optimally promote student learning.

The findings further indicated that a hands-on experience may lead to greater in-depth understanding. In this regard one participant observed: "This learning experience made me realise how important Life Skills is in the Foundation Phase." This idea emphasised the importance of authentic, real-life situations in a curriculum to provide students with

opportunities to learn by doing. This not only develops better-educated students, but it may also provide opportunities for personal development, as the following suggests: “At the end of the day the project meant more to me personally than for instance, the marks that I am going to get for it.”

It is evident that it is not the feedback itself that will improve learning, but the way students understand what to do with the feedback that might motivate them to be engaged in the learning process. It is suggested that a curriculum should provide students with opportunities to interpret feedback as feed-forward; in other words, to focus on what has already been done and consciously to build upon their strengths as they progress. Thus, for feedback to be effective in the Life Skills classroom, it needs to be timely, meaningful and also provide specific suggestions about problems – clear suggestions that can focus students’ attention on rectifying mistakes. A central idea here is the concept of feed-forward where the feedback has a forward-looking purpose with a positive focus on subsequent steps for improvement. This idea implies that feedback should enable students to close the gap between areas of deficiency with ways to improve.

CONCLUSION

In this chapter some possibilities have been explored for curriculum inquiry to enhance learning in one higher education classroom. The findings of my inquiry hold promise for lecturers to rethink classroom practices when approaching curriculum renewal from the angle of assessment. Based on the findings, I want to emphasise a number of critical factors:

First, the findings from the inquiry suggest that students’ perspectives can be useful in planning assessment practices and thus also course renewal. However, a shared understanding of the purpose and effects is required so that students will clearly know where they are heading with their learning.

Second, in addressing the value of assessment in the Life Skills classroom, assessment arguably plays a key role – both in fostering learning and in the certification of students. It seems evident that one can easily become entangled in assessment issues and lose sight of the real purpose of assessment in a single course and in a specific classroom. The core mission of designing assessment activities therefore involves careful consideration of the students’ learning tasks. It is the lecturer’s sole responsibility to plan assessment methods whereby students will be able to demonstrate their learning and to help them to have developed a well-rounded set of abilities by the time they graduate. These abilities include both intellectual and personal development. This idea in turn implies that both formative and summative assessment can be implemented as complementary and overlapping methods – in this case, in the Life Skills classroom – the aim being to benefit the quality of student learning.

Third, if the focus is on student learning, this means that students need to be involved in authentic situations in which they have to perform real-world tasks that demonstrate meaningful application of essential knowledge in their acquired skills. There is little doubt that assessment experiences allow students to arrive at conclusions about themselves based on the information they receive from the assessment. In my inquiry, it was apparent that assessment practices must provide students with opportunities to learn and develop through motivational, cognitive and behavioural engagement that allows them to use their knowledge and skills in real-life situations.

Fourth, bearing this latter idea in mind, the implication is therefore that assessment should be used as a tool that increases students' faith in themselves as successful learners. Central to this idea is Race's 'spreading ripples' model of learning which suggests that learning can be initiated by the bounced-back ripples through doing, making sense, feedback and understanding. It should therefore be vitally important to consider these different elements during the assessment process so as to promote student motivation, engagement and self-regulation.

The above-mentioned four ideas frame this chapter's message, namely that an inquiry into assessment theory and practices can influence students' engagement in the learning process. Therefore, when lecturers plan their assessment activities, they must remember that the primary purpose of assessment should be to serve student learning.

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18

THE UNIVERSITY CURRICULUM AS ENGAGING WITH EXTERNAL NON-ACADEMIC COMMUNITIES

A GROUNDED THEORY INQUIRY APPROACH

Antoinette Smith-Tolken

INTRODUCTION

The university curriculum needs to be central to South African higher education debates. Curricular content is expected to be commensurate with the expectations of a wide array of stakeholders of which students, their parents, the government and future employers of students are but a few (Botha 2009). This array of expectations and the consequences for curriculum design, however, make any discussion on the curriculum a complex matter and hence a worthwhile topic to research. Curriculum design is the incubator of the curriculum and has been established as one of the sub-fields of higher education studies (Bitzer & Wilkinson 2009). Community engagement, a further sub-field of higher education, has recently emerged and is closely connected to curriculum design of specifically experiential learning-based curricula. Such curricula which complement vocational training as prescribed by professional boards, thus bringing students in touch with practice, may contribute to students developing a sense of social responsibility towards society as a whole (Smith-Tolken 2010). Experiential learning pedagogies are based on engaging students in experiences that enhance learning. Community work may be one such vehicle that can provide such experiences. When these experiences are structured as part of the curriculum to foster social responsibility and provide exposure to practice in their field of study, such pedagogies add more complexity to curriculum design.

Extensive theoretical frameworks have been developed for the learning process and outcomes for students, based on experiential learning theories (Kolb 1984), but studies on the curriculum as engaging with external communities is a neglected area of study. Literature on curriculum design tends to be descriptive and a-theoretical (Hefferman 2001; HEQC/CHE 2006; Mouton & Wildschut 2007). Theoretical grounding or engagement with theory has also been found to be one of the weak points of higher education studies and subsequently higher education curriculum design studies (Tight 2004). Grounded theory is a methodology that is conducive to conducting an

inquiry for the purpose of constructing theory (Bryant & Charmaz 2007b). It is also considered to be one of the research methodologies that are conducive to small-scale educational studies on a micro-level functioning with an interactive and emergent character (Creswell 1998; Denscombe 2007; Merriam 2002). Such studies focus on interaction with the self or others on an ongoing basis as being the phenomenon under study. Through its systematic comparative analysis it could shed light on interactive educational processes such as educator-learner, educator-educator, educator-institution and so forth.

However, the aim of this chapter is to give a brief overview of community engagement as the third core function of higher education institutions and its implication for higher education curricular design. A brief summary is given of what grounded theory methodology entails and how it is conducive to curriculum studies in higher education. I draw on my own work where I used the methodology in a study of seven experiential learning modules that included engagement with external non-academic communities. I also draw on other studies to demonstrate its application, which leads me to evaluate the method from both a positive and a negative perspective.

COMMUNITY ENGAGEMENT AND THE HIGHER EDUCATION CURRICULUM

The concepts 'community engagement' and 'the higher education curriculum' are central to the content of this chapter and thus require clarification. The Higher Education Quality Committee (HEQC 2004:19) describes community engagement (CE) in the South African context as

... initiatives and processes through which the expertise of the institution in the areas of teaching and research are applied to address issues relevant to its community.

CE typically finds expression in a variety of forms, ranging from informal and relatively unstructured activities to formal and structured academic programmes addressed at particular community needs (service-learning programmes). Some projects might be conducive to the creation of a better environment for community engagement and others might be directly related to teaching, learning and research. These initiatives and processes take a variety of forms and might be differently structured in each higher education institution.

In the United States of America (USA) the term 'civic engagement' is commonly used. It refers to a particular way of doing teaching, research and service with and in the community. It means very much the same as the term 'community engagement' that is used in South Africa, but it places engagement at the centre of all the activities that emanate from the three university functions (Hatcher & Erasmus 2008; Thomson, Smith-Tolken, Bringle & Naidoo 2008). In the US service learning (SL) is perceived to be the preferred avenue through which civic engagement can be accomplished (Kenny & Gallagher 2002). In South Africa the US perspective is echoed in that SL is one of the methodologies that is prominent in both community and civic engagement, because

it provides a framework through which service may be integrated into curricular work (Kenny & Gallagher 2002; Le Grange 2005). I define SL in the South African context as a form of community-based experiential learning and a curriculum-based, credit-bearing and carefully structured educational experience in which students participate in an organised community interaction activity that meets identified and agreed upon community goals; reflect on the service activity in order to gain a deeper understanding of module and programme content; acquire a broader appreciation of the discipline and develop an enhanced sense of social responsibility towards society as a whole (adapted from Bringle & Hatcher 2007).

Service learning differs from other forms of experiential learning by giving prominence to reflection as a bridge between service and learning and it strives to transform students' attitudes towards active, socially responsive citizenship in partnership with others (HEQC/CHE 2006; Lazarus 2007). To enable such processes of service, learning and transformation, a curriculum design that is conducive to engaging with non-academic communities is paramount.

Clarifying the HE curriculum is a bigger challenge, as curriculum studies in general focus mainly on the school curriculum and school modes of learning. According to Barnett and Coate (2005:27-28), the higher education curriculum "remains largely unknown" and has emerged as "tacit notions of curricula" that are shaped within certain social contexts rather than based on rigorous research in the field. Barnett and Coate (2005:28-39) point out that these tacit notions frame the HE curriculum as:

- *Outcome pressured* by demands rather than based on research;
- *Content* in terms of breadth and depth;
- *Culture* in the sense that the curriculum misshaped in a fragmented manner, favouring disciplines rather than programs or subject matters;
- *Social reproduction of divisions in society* as a result of the 'hidden curriculum' that favours certain students who has attained a functional literacy as preparation for university rules and forms of communication between lecturer and student;
- *Consumption* where modules provide open choices to recreate programs to fit the purpose of the student as consumer;
- *Liberal education* where the focus is on the expansion of the mind and developing an ability to learn beyond university curricula and which allows personal engagement. (Author's emphasis)

These different frames perpetuate the complexity of studying the higher education curriculum as they are intricately related in shaping it. In this chapter I frame the curriculum as engaging with external non-academic communities which could encompass some of the frames above. The focus in such a curriculum is not only to bridge the theory-praxis divide, but on developing the student as a person, professional and a citizen of society. In my doctoral study, I focused on this framing of the curriculum which implies two main components: service in a community and

learning while serving. Very few studies, if any, have focused on the actions and process of service, while extensive theoretical frameworks have been developed for the learning process and outcomes for students based on experiential learning theories (Furco 1996; Kolb 1984). Service in this context is a construct and a means developed by the higher education system to benefit student learning and the discovery of knowledge. However, studies in the field tend to concentrate on refining experiential learning and SL theory, with little focus on what kind of theory underlies the service part that is involved (Alperstein 2007). The service part often represents how the community voice is heard. Other studies on service focus on the actions of academic staff in the university as institution rather than the service to non-academic communities, which gives yet another interpretation of the construct 'service' (Macfarlane 2005, 2007). It became evident that clear conceptualisation of the construct 'service' is paramount in order to render it as beneficial to both community and students. This clarity will also impact on the way faculty members engage with communities of placement and will ensure that both parties attach the same meaning to the construct. In this regard I asked the following question: What meanings are developed around service and how does the curriculum become conducive to such engagement? By using grounded theory methodology, I could trace the meanings as well as the processes involved in such engagement between university and community on a micro-curricular level. Below, I give a brief overview of what grounded theory methodology encompasses.

OVERVIEW OF GROUNDED THEORY

Grounded theory emerged from the use of grounded theory methodology (GTM), which comprises "a systematic, inductive, and comparative approach for conducting inquiry for the purpose of constructing theory" (Bryant & Charmaz 2007b:31). In GTM, theoretical frameworks are developed from data which inform and focus further data collection through a form of purposive sampling called theoretical sampling. Concepts and theories are developed through constant comparison of codes that are derived from the data (Denscombe 2007; Glaser 1978). Theory emerges from the data gathered and is likely to offer insight, enhance understanding and provide guidance to action in the context in which the theory was developed. It is explorative in the sense that the researcher keeps an open mind about the field of study and does not have preconceived ideas about the relevance of the concepts or the hypotheses (Denscombe 2007). This does not mean that the researcher has a blank mind, as he or she should have studied the area in order to develop the research question and make sense of the data (Glaser & Strauss 1967).

What should be noted though, is that GTM consists of specific methods and strategies. The former refers to the techniques and methods associated with it in general (e.g. theoretical sampling and coding) and the latter to how those methods are applied in building theory (Charmaz 2002; Denscombe 2007). In all variants of GTM, the following strategies remain the same: simultaneous data collection and analysis; pursuit of emergent themes in early data analysis; discovery of emerging social processes

in the data; inductive construction of abstract categories that link these processes; and sampling to refine the categories into a theoretical framework specifying causes, conditions and consequences of the studied processes (Charmaz 2002:677).

Since the inception of GTM in 1967, its founders (Glaser & Strauss 1967) developed this methodology in somewhat opposing ontological and epistemological directions, resulting in endorsing a strong positivist (Glaser 1978) and postpositivist (Strauss & Corbin 1990,1998) notion of the original more open-ended grounded theory (Charmaz 2002). Though some of the basic elements of the method remained unchanged (such as coding, categorising and comparative analysis; memo writing; theoretical sampling), the most important criticism against both stances remained their realist ontology and objectivist epistemology (Charmaz 2000).

The paradigmatic influence of post-modernist and post-structuralist qualitative research developed GTM into a further mutation of constructivism with a strong symbolic interactionist theoretical perspective, juxtaposing itself to the objectivist perspective of GTM.

TABLE 18.1 Differences between GTM approaches

Approach	Objectivist	Constructivist
Ontology	<ul style="list-style-type: none"> ▪ Assumes external reality ▪ Assumes discovery of data ▪ Assumes conceptualisations emerge from data 	<ul style="list-style-type: none"> ▪ Assumes multiple realities ▪ Assumes multiple constructions of data ▪ Assumes researcher constructs categorisations
Epistemology	<ul style="list-style-type: none"> ▪ Positivist/Postpositivist theoretical perspective ▪ Assumes the neutrality, passivity and authority of the observer ▪ Etic interpretation of data while giving voice to the observed ▪ Views data analysis as an objective process ▪ Aims at parsimonious explanation 	<ul style="list-style-type: none"> ▪ Constructivist/Symbolic interactionist perspective ▪ Assumes observer’s values, priorities, positions and actions affect views ▪ Emic interpretation of data through inter-subjective interaction with the viewed ▪ Acknowledges subjectivities in data analysis, recognises co-construction of data; engages in reflexivity ▪ Aims for interpretation
Methodology	<ul style="list-style-type: none"> ▪ Guidelines are didactic and prescriptive ▪ Uses axial coding and conditional matrix leading to testable hypotheses ▪ Gives priority to researcher’s view ▪ Focuses on developing abstractions 	<ul style="list-style-type: none"> ▪ Guidelines are flexible ▪ Uses sensitising concepts embedded in the researchers’ discipline and in relation to the research problem ▪ Seeks participants’ views and voices as integral to analysis ▪ Focuses on constructing interpretations

Based mainly on Charmaz (2000,2002,2008) and Denscombe (2007).

Table 18.1 depicts the differences between these approaches in terms of ontology, epistemology and methodology through an analysis of the views of the original founders (Glaser & Strauss 1967), the later interpretations of their associates (Glaser 1978, 1992; Strauss & Corbin 1990, 1998), and the view of more recent critics (Bryant & Charmaz 2007b; Denscombe 2007). In the work of the original proponents there is a clear leaning towards the positivistic roots and a mechanistic procedural research process, prompting me to draw heavily on the work of Charmaz (2000, 2002, 2008) in compiling Table 18.1.

In Table 18.1, I categorise the positivist and postpositivist notions as objectivist and the symbolic interactionist notions as constructivist. The role of the researcher plays a defining role in the approach. In the objectivist approach, the traditional detachment and expert view prevails, while in constructivism, there is a close interaction between respondent and researcher. Interactionism focuses on meaning of experience rather than factual evidence of a given situation and complements the constructivist approach in GTM (Charmaz 2000, 2002; Denzin 2001). This form of GTM promotes flexible strategies as the process unfolds and the development of sensitising concepts which give direction to the abstraction of data, while valuing adaptability and pragmatism as principles in the theory-building process (Charmaz 2000, 2002).

The constructivist grounded theory approach is associated with analytical strategies to generate data rather than with data collecting methods (Charmaz 2000). This means that the researcher will purposely choose a set of actions to enhance her analytical ability. Unstructured interviewing is the most common method of data gathering, but aligned with the flexibility of the approach, rich data can be drawn from multiple sources, for example, observations, public records, organisational reports, respondents' diaries, and the researchers' own memos and reflections (Charmaz 2000, 2002, 2007; Denscombe 2007). Data are narrative reconstructions of experience, inter-subjectively shared by the researcher and respondent, which are recorded for analysis.

In the next section, I discuss the GTM analytical framework as it is applied in the constructivist notion.

The analytical framework of GTM comprises five interconnected components, namely the theoretical sensitivity of the researcher; theoretical sampling to generate data during analysis; coding or labelling of phenomena; constant comparison of codes; and from this, the development of concepts and memo writing (Glaser & Strauss 1967). I briefly discuss some of these components of the GTM that are applicable to this study. Theoretical sensitivity is a personal quality of the researcher and indicates an awareness of the subtleties of the meaning of data. The theoretical sensitivity of the researcher is developed from a number of sources (Glaser 1978; Strauss & Corbin 1990).

- The first is the literature, which gives the researcher a rich background of information about the topic and sensitises her to the phenomena under study.

- Professional experience is another source of sensitivity which develops through years of practice in a field.
- Implicit knowledge from experience is incorporated into the research situation and gives the researcher an ability to gain insight into the situation more rapidly than someone without such experience.
- In addition, the analytical process itself provides an additional source for theoretical sensitivity, as the insights into, and understanding of, the phenomena increase as the researcher interacts with the data (Charmaz 2008; Strauss & Corbin 1990).

A fundamental feature of the emergence of data in GTM derives from active researchers who will interact with data and interpret the data (Charmaz 2008). Theoretical sampling is closely related to, and dependent on, the theoretical sensitivity of the researcher and has been described as “a form of non-probability sampling in which the new sites are consciously selected by the researcher because of their particular characteristics” (Denscombe 2007:99).

Initially the researcher deliberately chooses a site and/or group to be studied that fits the research question and will generate the relevant data (Strauss & Corbin 1990). During analysis, data generation becomes cumulatively aligned with the emerging themes in the data. This implies that the researcher decides what data will be gathered next and where to find them on the basis of provisional theoretical ideas. In this way, it is possible to answer questions that have arisen from the analysis of, and reflection on, previous data (Boeije 2002).

Coding is a process of labelling. Analysis is done by studying the data and doing line-by-line coding through interpretation known as ‘open coding’, which starts the chain of theory development (Glaser & Strauss 1967). Preference is given to action codes that are synthesised into categories through constant comparison. Coding is highly dependent on constant comparison throughout the analysis, a critical technique in GTM comprising the following actions in close relation to one another (Strauss & Corbin 1990; Charmaz 2008):

- Comparing data with data;
- Labelling data with active specific codes;
- Selecting focused codes;
- Raising telling focused codes to tentative analytic categories;
- Comparing data and codes with analytic categories;
- Constructing theoretical concepts from abstract categories;
- Comparing category with concept;
- Comparing concept with concept.

When the researcher compares data with data, the information may emanate from the same person at different points in time or different persons in the same situation. It may

also involve comparing incidents with incidents (Boeije 2002; Strauss & Corbin 1990). Constant comparison interprets open codes in relation to one another by identifying 'axes' or central codes and this is referred to as 'axial coding' (Strauss & Corbin 1998). I prefer the term 'selective or focused' coding (see bullets 3 and 4 above) as per Charmaz (2000,2008), which amounts to sorting and synthesising initial codes. Categories are developed from the focused codes, which subsequently begin to coalesce into abstract configurations of the data – this is ultimately the beginning of a framework. A complexity of categories may be clarified by assigning dimensional properties that evolve from the data and give shape to analytical frameworks (Charmaz 2000; Glaser 1978). This serves the purpose of developing a richer understanding of the phenomena under study.

Memo writing is the middle ground between coding and the completed analysis. The researcher uses memos to remember observations, interpretations and ideas that surface throughout the process and uses them to refine interpretations (Charmaz 2000,2002,2007; Creswell 1998; Denscombe 2007).

In the next section, I describe how these components unfold into a research process.

The grounded theory research process occurs in cycles of research activity. Data collection and analysis occur concurrently and researchers move reiteratively between empirical data and an emerging analysis, which becomes progressively more abstract and theoretical (Bryant & Charmaz 2007b).

In a cyclic process the researcher follows certain steps until theoretical saturation is reached. The researcher:

- enters the field of interest;
- decides on a purposive initial sample;
- collects data through interviewing and other sources;
- records the data;
- codes it through interpretation;
- compares interpretation codes from different cases (and different contexts of one case) to develop categories of codes;
- builds concepts from categories;
- orders concepts in a relational order to form theory (Creswell 2002; Denscombe 2007; also see Kunkwenzu and Reddy (2008) for a graphical depiction of this process).

Theoretical sampling evolves and is informed by the emergent theory. If no new concepts emerge, the theory is saturated and can be written up. If not, the cycle goes on.

Data analysis begins during the fieldwork and continues after the data development process is completed (Bowen 2006; Brott & Myers 2002; Kunkwenzu & Reddy 2008). Memo writing throughout the process ensures recording of continuous thinking and analysis by the researcher for writing up when the research process has been completed

(Charmaz 2002; Denscombe 2007; Glaser 1978; Strauss & Corbin 1998). Sequential interviewing with participants to control interpretation of data ensures that theory is derived from data (Charmaz 2000; Glaser 1978).

APPLICATION OF GTM IN HIGHER EDUCATION CURRICULA AND OTHER RELATED STUDIES

According to Denscombe (2007:99), the grounded theory approach is especially conducive to “small-scale projects using qualitative data for the study of human interaction, and by those whose research is exploratory and focused on particular settings”.

Substantive community engagement is closely linked to the empirical situation and practice of a specific context and setting, compared to formal theory, which is more conceptual and generally applicable beyond specific settings (Denscombe 2007). GTM is designed to develop middle-range theoretical frameworks that explain the collected data (Charmaz 2000), which strengthens the selection of this approach for curricular studies.

Kunkwenzu (2007) explored the first-year teaching experiences of home economics teachers in Malawi by using GTM. She mapped their experiences and developed a substantive theory of their challenges and coping mechanisms (Kunkwenzu 2007). Bowen (2005) conducted a study of the working relationships between funders and community organisations which is relevant to community engagement enquiries studying the collaboration between the university as organisation and community-based organisations.

The descriptors for the grounded theory approach fitted well into the purpose of my study, as I was interested in the interaction between the actors in the process of engagement during service-related actions. By exploring the implicit meanings these actors gave to the actions, it was possible to derive a substantive theoretical framework to guide similar actions in future in the context of CE at a particular institution. Below I give an overview of the steps I took to arrive at the envisaged theoretical framework as an example of grounded theory inquiry.

A grounded theory inquiry

During 2009-2010, I conducted a doctoral study titled *Community engagement at a higher education institution – exploring a theoretical grounding for scholarly based service-related processes* (Smith-Tolken 2010). The construct of scholarly-based service-related action is construed from the (re)definition of scholarship by the American educator Ernest Boyer. The work of Boyer (1990) made a significant contribution to the way CE was conceptualised in South African higher education (HEQC/CHE 2006). Boyer (1990) presents an expanded view of scholarship as having four overlapping functions: discovery, which refers to the contribution and advancement of (all forms of) knowledge; integration, referring to connections across disciplines in the larger context;

application through service as dialogue between theory and practice; and teaching, which refers to the understanding of knowledge by the teacher, and the facilitation of the student's learning. In his explanation of the scholarship of 'application', he distinguishes between citizenry service activities (which by definition is volunteer work) and scholarly actions in which "service activities must be tied directly to one's special field of knowledge and relate to, and flow directly out of, this professional activity" (Boyer 1990:22). It requires the rigour and accountability traditionally associated with research activities. He swiftly asserts, however, that application does not imply a one-way direction, but a two-way flow of knowledge where theory and practice meet.

For the purpose of this study, I drew on this understanding to define the construct of scholarly-based service-related processes as:

A series of actions by staff members and/or students of a higher education institution in collaboration with community members or representatives of community organisations which relate to the specialised field of the staff and/or student knowledge base, the core functions of the university, as well as the needs expressed by the said community members, culminating in a meaning-giving process over time. The assumption is that this collaboration is agreed upon by the participants.

In the study I traced the service-related actions of the lecturer as the module coordinator (CO), the student(s) (ST), the community organisation representative (COR) and the community member(s) (CM) in seven different programme-based modules through unstructured interviews, the most common data generation method in GTM. The responses of these actors were triangulated and I developed insight into how the actions take place, how meanings are developed and finally cumulate into a coherent process which consists of four interrelated processes. The ultimate purpose of the study was to contribute to a theoretical grounding for 'service' processes that are connected to underlying knowledge systems and that take place in community spaces with shared interests by the actors involved in these processes.

The grounded theory analysis took place in three levels of comparative analysis. In the first level the actions of the four distinct groups were listed and compared according to their causality and interrelatedness (known as 'open codes'). An example of open action coding would be in the case of the CO 'decide' as action and 'which sites match module', 'which students may participate', 'time frames of service' and 'structure of interaction' as descriptors or the 'what' of the action. The first level of coding indicated a process of interchange which happens in cycles of action as students move backward and forward from campus to community which was labelled cyclical interchange. In this level of coding, I found the Paradigm Model in GTM developed by Strauss and Corbin (1990) very helpful. It consists of an analytical schema that provides five features for constant comparison, which enhances density and precision:

- The first feature is the *phenomenon*, which refers to the central idea or action to which the data refer.
- The second is the *causal conditions*, which lead to the development of the phenomenon.
- The third is the *context*, referring to the set of conditions within which action takes place in response to the specific phenomenon.
- The fourth is the actual action/interactional *strategies* directed towards managing or responding to the phenomenon.
- The fifth feature is the *consequences* that are the outcome of the action taken.

In the second level analysis the open codes are collapsed into focused codes to form subcategories of action and meaning. Loosely aligned with the paradigm model, the focused codes were grouped into four themes that emerged from the focused codes.

In the third level of analysis, sub-categories represent the attributes of preliminary categories. Themes emerge from these preliminary categories to become main categories that give direction so that a theoretical understanding of the actions and processes involved can be developed. The first theme consisted of the relevant micro-contextual conditions necessary for integrating community work into a curriculum; the second theme comprised the approach or strategies in managing linkages between the university and community actors; the third theme captured the actions and interactions that take place during on-site and off-site activities; and the fourth theme captured the evaluation process and outcomes.

Each of the themes consisted of three or four preliminary categories substantiated by the focused codes linked to them. Each preliminary category has properties that link it to other preliminary categories and focused codes that refer to more than one preliminary category. In this type of research process, caution must be taken not to oversimplify the process by deducing that the conditional and strategy themes lead to the actions/interactions and consequences. The actual process is much more complex. Each of the preliminary categories and its properties is constantly influencing other preliminary categories. For example, to be able to structure goal-focused tasks as a strategy, one needs a compatible community setting to fit both the module goals and the organisational goals, while on-track verifications will ascertain whether actions are being diverted from goals or agreements. Actions on site can potentially be derailed if institutional support falters or organisational agreements are not honoured.

I theorised that the first three subcategories – module structuring conducive to community work, comparative community setting and organisational/institutional support – could be grouped under the category ‘Establishing common ground for interchange’ between the four identified actors or actor groups. The actors’ approach or strategy was labelled: ‘Steering interaction towards goals’ through structuring tasks, mediating agreement and gate-keeping (to prevent) diversions from planned action.

What became the key to the final theory was the process through which the actions and interactions were performed. I labelled this 'Facilitating cyclical interchange'. This refers to the moving back and forth of actors between personal and joint meanings as well as geographical locations, coupled with working together and separately at times. I labelled the evaluation and outcomes theme 'Assessing change and opportunities', consequently giving greater clarity to the equivocal trend in the literature about the benefit of scholarly-based service activities to the community. This culminated in a thematic structure that became the thematic framework of the theory according to the features of the paradigm model. These four themes clustered the sub-categorical processes into an integrated cyclical process of interchange. In Figure 18.1, I illustrate how the four processes are interlinked in the overall process of interchange. In the cyclical motion of interchange, the four processes are constantly integrated in different ways. For example, conditions are constantly in flux due to the actions and strategies of actors, while consequences indicate how future relationships will continue or terminate.

After developing the thematic framework, I coded all new data in the same way until no new ideas or codes emerged from the data. Saturation means that the researcher has explicated all properties of the developed theoretical categories and has sought data that fill those properties (Charmaz 2008). I subsequently interpreted the absence of new ideas as saturation of the emerging theory as outlined in the overview of GTM. This framework led me to rethink the conception of the phenomenon in question and the sensitising concepts which I will explain shortly. I refined this framework and used it to further analyse and formulate the theory. What emanated from this part of the analysis was students' contribution to actions that could be interpreted as scholarly. By using exit-level modules of the chosen academic programmes for community integration in the curriculum I was able to infer that students do engage in scholarly work by applying theory in practice. There is some strong evidence that they co-create new knowledge with community actors, leading to the production of viable enabling products. However, this theorising is done in close consultation with the data. Each of these components has to be explicated and substantiated by data derived from the unstructured interviews and other forms of data generation.

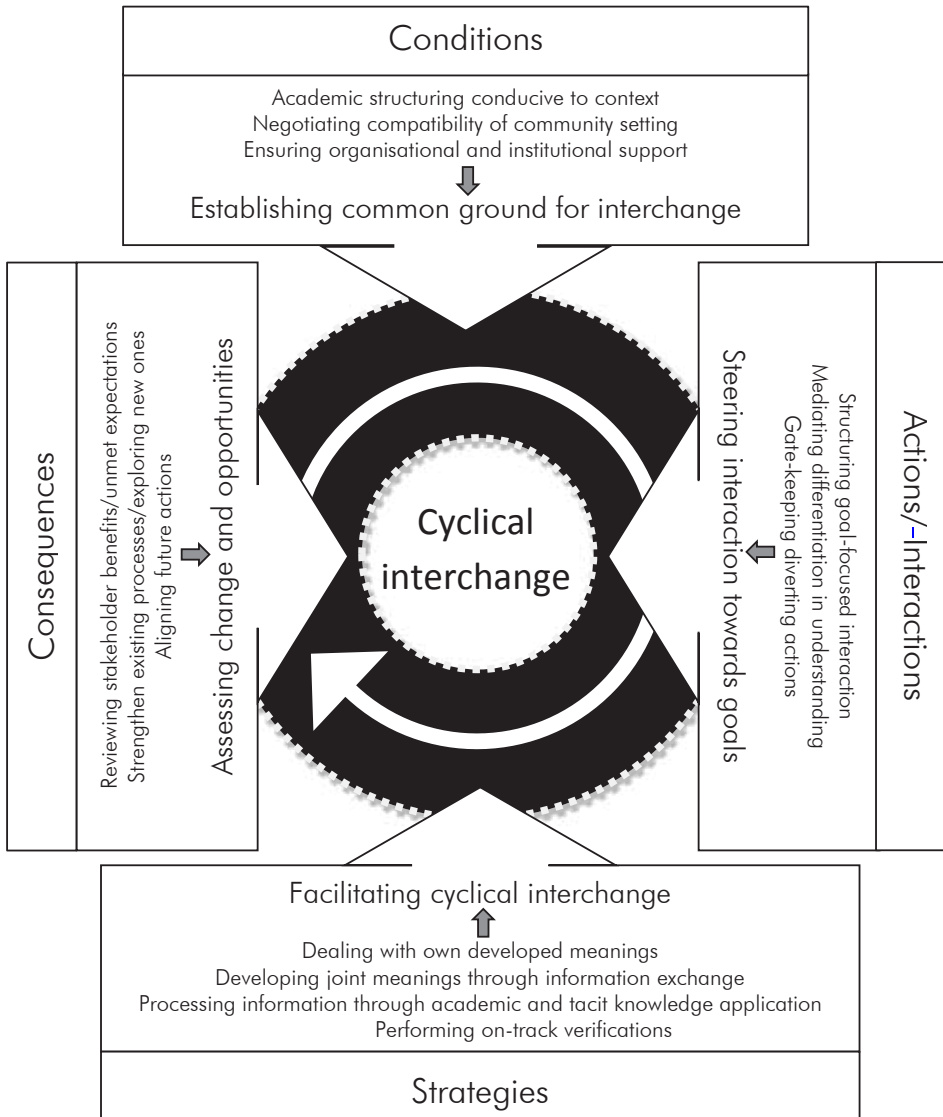


FIGURE 18.1 Thematic framework of the emerging theory (Smith-Tolken 2010)

Through such explication, a researcher can develop further insight into the phenomenon under study. In this case, the concept ‘scholarly service activities’ emerged, qualifying service as a scholarly activity. Based on the attributes of this concept, it was defined as:

The act of applying implicit and codified knowledge in a community setting, directly or indirectly, focused on the agreed goals or needs while ascertaining growth through the acquisition of skills and an enhanced understanding of the meaning-making content by all the actors involved.

At the same time ‘community service’ developed into a new meaning of the ‘community’ offering the service. In the context of scholarly service actions, the community actor offers a service to the university actor by accommodating and engaging with them. Conceptual clarity also emerged about the character of the relationship through which this interchange takes place. The data challenged the idea of ‘partnership’ as an interdependent relationship between actors and reframed it as agreements on different levels. What also emanated from the data was the production of tangible and intangible commodities that were exchanged between actors. These commodities could be variations of tangible physical resources of the organisation or university, literary products such as pamphlets and booklets, or intangibles such as human resources like mentoring, knowledge sharing, access to expertise and enabling activities.

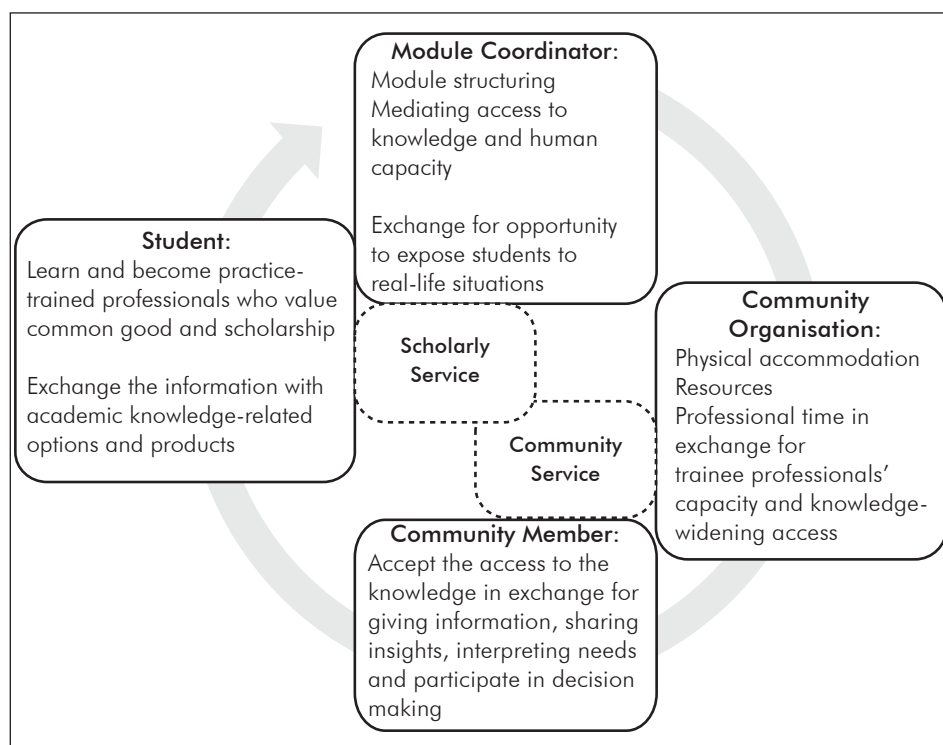


FIGURE 18.2 Exchange of social commodities (see Smith-Tolken 2010)

Each of the actors’ contribution to the interchange process is depicted in Figure 18.2. ‘Cyclical interchange of social commodities’ was chosen as the core category. This category encapsulated the mutual giving and taking, the cyclical sequences and the results that emanated from this action. From the data it was also clear that new knowledge was co-created through this process. Module coordinators integrated their scholarship of teaching with engagement as they innovatively expanded experiential

learning theories into practice, culminating in new forms of knowledge transfer and access. They further demonstrated scholarship by steering, in a trans-disciplinary way, the integration of all forms of knowledge in the unfolding process. These forms of knowledge emerged as community wisdom, and the practical know-how of practitioners being merged and exchanged with STs' knowledge. Students critically synthesised their tacit knowledge creatively with codified knowledge to produce customised social commodities. They used methods such as information gathering, brainstorming ideas, presenting them in new forms and testing them in real-life situations to produce the social outcomes that were customised to the specific community context. This type of knowledge creation was earlier referred to as 'useful knowledge', meaning that the knowledge is socially accountable in the context in which it is generated (Kraak 2000). After clarifying and (re)defining the core emerging categories that were to become the core concepts, I could now deductively propose a framework for the emerging theory which I could inductively link with data.

The theoretical framework that was developed, consisted of four interrelated concepts that defined the main phenomenon of cyclical interchange (Figure 18.3), namely scholarly and community service, agreement-based relationships, social commodities and co-creation of useful knowledge. This interchange takes place in close relation with the concurrent meaning-giving contexts of the community and the student's learning process. The meaning-giving context in the centre of the figure is closely linked to the meaning-giving context of communities in general in society. The context is viewed as meaning-giving as it refers to the life experiences of the people who acquire meaning in the context within which past and present events, ideas and objects (including any developmental action) are interconnected. This context is constantly in flux, caused by the constant influence of parts on each other as they interact and the boundaries between the parts and the whole are blurred (Kotzé & Kotzé 2008). The meaning-giving context of interchange consists of the meanings that are developed through the interchange process of actors reflecting individually or interactively with other actors. The assumption that people can and do think about their actions rather than merely responding to stimuli is aligned with the formal theory of symbolic interactionism which "assumes society, reality, and self are constructed through interaction", reliant on language and communication (Charmaz 2006:7).

On curricular level, the meaning-giving context is dependent on favourable conditions for interchange, namely the reciprocation of scholarly and community service. This implies the reciprocal interchange of community assets for scholarly assets in the cyclical process of giving and receiving.

When the student or staff member interacts with community actors, an interchange of social commodities takes place within a typology of strategic relationships that may vary in intensity, commitment and length. These relationships may be labelled as *ad hoc* contacts, agreements, collaborations or partnerships, depending on the meaning associated with them. What is different about these relationships is that they are not

linear and neatly fitted into phases. In the meaning-giving context they are constantly fluctuating. The social commodities take on different forms, which may be tangible or intangible, depending on the meanings that are developed during the interchange. The overarching attributes of social commodities are their relation to student learning and development, as well as their enhancing of current practice in community organisations and creating an enabling environment for community members. As a consequence of the interchange, useful knowledge is co-created through the application of codified, implicit (professional know-how) and tacit knowledge, culminating in new custom-made knowledge in the context where it is developed.

The application of this framework potentially impacts on three spheres of the context in which it was developed. The first is the direct link with programme and modular planning and subsequent qualification offerings in higher education institutions. This framework provides insight into the value of a community-based environment as bridging the gap between theory and practice, but at the same time developing the student's professional persona and laying the foundation for future scholarship and citizenship. It further provides an understanding of the underlying processes that occur concurrently with classroom teaching and the responsibilities that accompany the utilisation of community assets for teaching and learning.

This study shows how GTM may be applied in a curricular context. Using this example, the value of this approach can be considered.

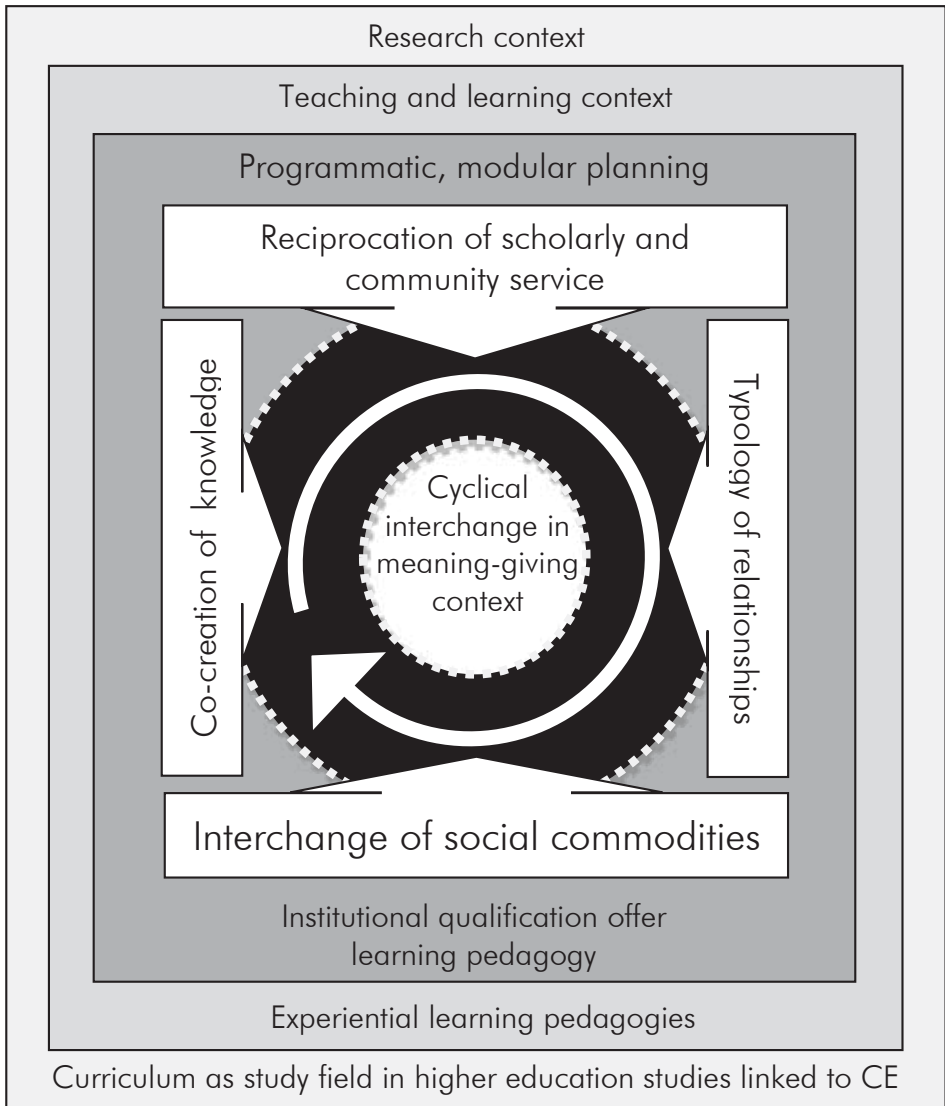


FIGURE 18.3 Theoretical framework for scholarly service processes (see Smith-Tolken 2010)

THE VALUE OF GROUNDED THEORY METHODOLOGY STUDYING THE CURRICULUM

From a positive perspective

Various authors (Babbie & Mouton 2007; Cresswell 1998; Merriam 2002) contend that thick description and theoretical sampling allow the reader to decide if research findings are transferable to other settings, because comparison to their own settings is simplified. The transferability of grounded theory studies rests predominantly on

the understanding that theory is developed from the phenomenon under study within the particular context and setting. The derived theory is normally transferable to similar contexts and settings. Multisite designs such as this one also strengthen both transferability and generalisability because of the variations in sites – in this case, covering different SU faculties (Creswell 1998). GTM enables the researcher to trace actions and processes as they happen in the own words of the respondents. Meanings are then interpreted and induced without moving away from the generated data. The benefit of such a micro-tracing research inquiry illuminates the finer nuances of actions and interactions which are often overlooked in other research processes. The context and the action become intertwined and reflect valuable insights from both, providing the ground for revision of perspectives and alternative action. The most important spin-off is that this form of inquiry enhances the conceptual clarity of constructs and concepts that are haphazardly used in both community and curriculum context. The formulation of substantive theories within a particular context makes an invaluable contribution to broader perspectives of more formal theory. In my study, it was interesting to see how the cycle of scholarly service coincided with the cycle of experiential learning as depicted by Kolb (1984) and how the meaning-giving context used in community interactive processes informed the context in which the framework was developed. GTM is an in-depth reflexive process which sharpens the researcher's senses and requires a fair amount of higher-order thinking. Accountability is a priority and no deduction is made unless there is enough evidence in the data to support it. A meticulous process of recording data, revisiting every form of data and constantly checking with respondents about interpretation, ensure a rigorous process of research.

From a negative perspective

GTM is one of the research methodologies that have gained considerable ground in qualitative research designs. At the same time, criticism against it has also flourished. Without quoting the multiple sources that go into detail about the negatives, I will resort to my own experience. GTM must be studied intensively before any effort is made to use it as a format for research inquiry. As a result of the different versions that have developed since its initiation it is not easily understood. Some of the criticism refers to the methodology as reductionist and too procedural. My stance would rather be that it is open to misuse by researchers who have the impression that 'everything goes' and that GTM can be adapted to fit the purpose of any study. The procedures that ensure credibility might be compromised if a researcher does not follow them rigorously. However, one would imagine that epistemic scrutiny would uncover such omissions.

Personal note

Reflecting on my first GTM research project, I realise that this experience has changed my approach to curriculum research as just a clinical process; it has developed my confidence to release control, and deepened my understanding of CE on macro- and micro-level. The most important lesson I have learned is never to take anything

that happens in a process for granted, or to label it before ascertaining that the label actually represents the action or meaning. As I reflected on my own work and experience in community development, I realised that practitioners and researchers in CE should constantly reflect about their work in order to be sensitive to changes in society. In contemporary society, a community is seldom a homogeneous grouping. Contemporary communities are hybrid and tend to be more like open social fields of interaction. A constant change of meaning occurs as people interact, thereby influencing those involved. This creates fluidity in interpretations which need repeated re-visitation. Scholars in CE tend to underestimate the people who are not part of the university in the knowledge-creation process by weighing local knowledge against codified knowledge. Codified knowledge is reliant on relevance to practice which emphasises scrutiny by society. If this scrutiny is perceived to be redundant, academic knowledge will remain isolated from society or can do more harm than good.

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19

CURRICULUM MAPPING AS INQUIRY IN HIGHER EDUCATION

Matete Madiba

INTRODUCTION

This chapter interrogates curriculum mapping (CM) as both a concept and a system and explores possibilities that can be associated with the different conceptualisations and the multiple purposes that CM can serve, with a special focus on curriculum analysis. The chapter aims to identify factors that have stifled curriculum development and analysis practices in higher education and seeks to present an argument on how these practices can be improved through the adoption of curriculum mapping. The argument is premised on work that spans over a decade, consisting of staff development and training activities; curriculum design, reviews and evaluation exercises; research into curriculum development and learning technologies; implementation of an institutional curriculum mapping project; as well as current research and development work to support an institutional curriculum mapping system.

Though curriculum mapping is a well-documented process (Udelhofen 2005), the paper-based approach is limited to supporting the dynamics of curriculum development and inquiry in higher education. The rich conversations that have to form part of such a process are lost in the tediousness and scope of the work to be covered. Advances in learning technologies provide new avenues from which curriculum inquiry can be explored. For example, using a web-based system for curriculum mapping can offer a number of affordances (Anderson 2004) and features to enable curriculum analytics. A system of this nature has to be built not as a technical tool; it has to be informed by institutional curriculum development agendas that are well thought through, as well as by internationally recognised curriculum principles.

By engaging in CM as a technology-enabled process, curriculum gaps and redundancies can be identified and informed decisions taken in terms of how to effect the necessary changes. Assumptions that inform curriculum designs are made explicit and rich and authentic conversations to interrogate those assumptions are provoked. An electronic trail of activities is maintained, providing the community with rich data sources from

which further reflective practice can emanate. This reflective practice becomes a reliable mechanism to steer the teaching and learning agenda towards achieving desired outcomes, namely, student engagement, retention and success, curriculum and professional development. In the South African higher education environment in particular, CM creates space for moving the quality development discourse from the macro- to the micro-level to ensure that investigative lenses are placed at the coalface of teaching, learning and assessment. Furthermore, CM provides unique opportunities to wrestle with conceptual tools for curriculum development such as constructive alignment, cognitive demand, coherence, logical sequencing, credit allocation, and use of level descriptors beyond the training room. It provides opportunities to support an inquiry- and evidence-based approach to curriculum development, shifting the goals beyond compliance.

WHICH CURRICULUM SCRIPT PREVAILS?

How are conversations on quality teaching, learning and assessment initiated and sustained in a university? How do we ensure that university-wide conversations on good curriculum principles are promoted and translated into good practice? These are some of the questions to be asked in order to foreground the role that curriculum mapping can play in higher education.

Within the South African higher education sphere, the SAQA (South African Qualifications Framework) Act of 1995 led to many curriculum development training programmes and activities. Even with so many training projects, translating the principles that were implied in the act became a challenge. Taking staff to workshops did not necessarily yield the desired outcomes. Training was an isolated activity that did not mean transfer into practice. This is made more complicated by the fact that curriculum development has many layers. How does one successfully traverse the many layers, from the exo- to the macro-, the meso- and the micro-levels and successfully weave in all the intended quality principles? How do role players manage the transition from curriculum development to delivery, work across all the many processes involved and still ensure that there is quality teaching and learning at the end? To demonstrate the challenges implied here the latter question can be posed differently: Which curriculum script prevails; will it be the intended, the planned, the taught, the learned or the assessed? What about the many discrepancies in between? Curriculum mapping, both as a concept and a system offers a number of opportunities to wrestle with these types of questions and more.

A key assumption made in this chapter is that curriculum mapping offers opportunities to approach curriculum as a “living system”, to use Wadsworth’s (2010:19) words as she argues that research and evaluation should be seen as “processes of inquiring within living systems”. Wadsworth (2010) argues that human inquiry has passed through three eras already, from research to evaluation to quality improvement. She

poses a challenge to move towards the fourth era that she describes as doing inquiry within a “living systems approach”. She further argues:

Thus the attempt to increase ‘whole systems’ capacity to fully search ‘around the inquiry cycle’ might be enhanced also by building up and strengthening everyday and in-house inquiry by individuals and groups: creating spaces and places for everyone to be able to stop and reflect, think and theorise, envision and plan, and try things out (Wadsworth 2010:58).

An accompanying assumption is that curriculum mapping can help build capacity and create these *spaces and places* for teaching staff to deliver curriculum in an inquiry-based manner and thus make research, curriculum evaluation and continuous improvement of teaching and learning an ongoing reality.

THE MANY LAYERS AND LEVELS OF CURRICULUM DESIGN AND DELIVERY

It is useful to first identify a meaningful framework within which curriculum is to be developed in an institution. Part of this is to acknowledge the many layers as already alluded to. Such a framework should help identify what imperatives should inform curriculum at each level. Strategies and methods of how external information (the exo-level) is collected and analysed to inform the design of new programmes are not fully developed and in many cases result in programmes with a narrow focus. The macro-level has received some attention, given the SAQA registration processes. What has crippled many curriculum development projects in South African higher education is concentrating at this level only and stopping there. The SAQA template that mainly results in a programme description document has been used as the main tool to facilitate curriculum development training. Though there is not much that this description will say about the actual teaching and learning, it is supposed to provide a sound basis upon which decisions on what to teach should emanate. A look at the programmes registered on the SAQA website provides a picture of the state of affairs in this case, a picture that is not by any measure pleasant to look at. There is a need to improve capacity in producing programme descriptions, the reason why the implementation of the Higher Education Qualifications Framework (HEQF 2007) should move beyond compliance.

The meso-level mainly resides in yearbooks and these contain general information and regulations governing curricula. The meso-level is the home for the many rules and regulations that govern course selections and combinations. Before the advent of SAQA, higher education curriculum was mainly available to students and the public in this format, and it was a record of the content and subject matter (titles and topics) to be learned in relation to specific programmes. It is only with the SAQA act and its aftermath that the macro-level was formally introduced. This became the main focus in terms of curriculum development from the late 1990s until recently. Improvements at the meso-level should facilitate students’ understanding of how the curriculum is packaged, and guide the processes of how they need to build learning programmes

for themselves that will lead to meaningful qualifications. A second challenge is to create sound links between the exit level outcomes that appear in the programme description and the content to be taught and learned. This part has not proved to be an easy one.

The micro-level has not enjoyed much attention and is left in the hands of teaching staff or lecturers, and perhaps that is rightly where it belongs. The challenge becomes bigger when this level is made less transparent and accessible and where continuous improvement becomes a threatened project. The focus on programme description and its components compromised the focus on what really goes into teaching and learning. A significant level of fragmentation remains, where programme descriptions are far removed from what is actually planned for and executed in the classrooms. This caused both the institutional audits and programme accreditation in the first cycle of the Council for Higher Education (CHE) not to have the desired transformative effect on teaching and learning in the South African higher education. It then became necessary that in the second cycle the object of analysis and focus becomes different and moves as close as possible to the micro-level. The CHE (2010:11) has already announced that

the second cycle of quality assurance will be focused on teaching and learning, particularly on the promotion of quality teaching and learning at all institutions and providers of higher education. This will be given effect differently through each of the quality assurance tools used by the HEQC according to their specific purpose and scope.

It is evident that focus at the micro-level must not be achieved at the expense of the macro-level. It is within this context that curriculum mapping is seen as a means to create the necessary links across all the levels and to ensure that the necessary relationships are maintained. The system can provide a constant mirror to check if these links are maintained.

WHAT IS CURRICULUM MAPPING (CM)?

Susan Udelhofen (2005) traces the concept of curriculum mapping back to the 1980s and associates it with the work of Fenwick English. English, an American educational author in the field of curriculum management and auditing, defined the concept as “a reality-based record of the content that is actually taught, how long it is being taught, and the match between what is taught and the district’s assessment program” (Udelhofen 2005). As Udelhofen (2005) points out, the concept was broadened in the 1990s through the work of Heidi Hayes Jacobs, especially through two of her books, *Mapping the Big Picture* (1997) and *Getting Results with Curriculum Mapping* (2004). The original definition was not only broadened; the concept was turned into “a multiphased process” (Udelhofen 2005).

The concept has evolved to incorporate many other facets associated with curriculum. Originally, as implied in English’s definition, it was only used to record and compare

the actual and taught curriculum with the assessed. Because of the many advances in technology the concept is now transformed into a dynamic system that can be used to compare all the possible *hues and shades* that can result from the intended curriculum. Moving curriculum mapping from the paper-based into a technology-enabled environment has made the definition even more unstable; new ‘affordances’ that come along with the latest developments in technology keep on expanding the possibilities of what can be achieved when the concept is embraced into curriculum development practices. For example, the latest developments in data mining have given birth to curriculum analytics. Analytics is basically about using available data and mining it intelligibly to inform decisions (Online Analytics 2010). According to Educause (2010), “[a]nalytics tools provide statistical evaluation of rich data sources to discern patterns that can help individuals at companies, educational institutions, or governments make more informed decisions”. When applied to curriculum, it means collecting curriculum data and using it to enrich conversations (on curriculum) and to inform decisions on changes to be made. Following Pawson’s (2006) evidence based approach to policy development, implementation and evaluation, the CM system can provide evidence beyond statistical data to inform and improve curriculum related policies, praxis and evaluation tools in a university.

In the context of this chapter curriculum mapping is seen as both a concept and a system through which ongoing reflection and continuous improvement of curriculum in an institution can be enabled and supported. The process of curriculum mapping involves the loading of curriculum data into an electronic platform. The platform takes advantage of the affordances brought about by the latest web-based technologies and functionalities to enable the analysis of curriculum. As a system it becomes part of the (cyber)infrastructure⁸⁴ to support an inquiry- and evidence-based approach to curriculum development and to instil a culture of asking questions about what is being taught, learned and assessed, including the why and how. CM becomes a process by which relevant role players (such as teaching staff, coordinators and educational developers) document the curriculum associated with programmes and modules from exit-level outcomes that appear in programme description documents to content, teaching plans, assessment plans and resources utilised; in other words, from the exo- and the macro- to the micro-level.

It is in this process of documenting where space for rich conversations is created; and where questions emanate about the what, why and how of what is being taught, learned and assessed. The process does not stop with documentation. Documenting the curriculum sets in motion the next step – which is curriculum analysis – to help arrive at judgements that either validate what is documented or suggest the necessary changes to be effected. By engaging teams in creating curriculum maps at different

⁸⁴ The driving engine for the Information Age is *cyber infrastructure (CI)*: the organised aggregate of information technologies (computers, storage, data, networks, scientific instruments) that can be coordinated to address problems in science and society (Berman 2008).

levels of curriculum design and development a platform is created for discussions and debates to occur and to create room where sound rationale is built for choices made in shaping curriculum. Curriculum mapping as a practice enables the community to record the decisions that are taken in the process of curriculum development and delivery, and the monitoring and evaluation of these decisions.

When curriculum mapping is adopted as a process and project in the manner alluded to above, the overall aim is to develop the conceptual as well as the technical infrastructure that will enable and deepen institutional conversations as far as curriculum is concerned; and this is done on the premise of continuous improvement of teaching and learning and curriculum delivery. Curriculum review, renewal, transformation or even revolution is an item that is consistently high on the higher education agenda, both nationally and internationally. The April 2010 Higher Education Summit at the Cape Peninsula University of Technology concluded its recommendations by stating that we need a curriculum oriented toward social relevance and which supports students to become socially engaged citizens and leaders. Equally, at the April 2010 Universities and the Millennium Development Goals (MDGs) conference of the Association of Commonwealth Universities' executive heads, universities were urged to regularly review curricula to ensure graduates had the skills and attitudes to contribute to attaining the MDGs and sustainable development. Curriculum mapping, if well conceptualised, holds promise to deliver in this regard. It can create a platform from which to confront the heart of the matter as far as curriculum delivery is concerned: the worth, weight and quality of being graduated.

The following demonstrates a few of the possibilities in such a system. The questions to pursue might be: Where in the university is anything to do with HIV/AIDS taught? What learning materials exist within the university and how can those be shared? Pushing it further, another question might be: What learning objects exist within the university that can be associated with the topic and how are they used? Two more questions might be: What teaching, learning and assessment strategies and methods are used in teaching this topic across various units, modules and programmes? Which exit level outcomes are associated with such a topic? To explore these questions using a system of this nature one is at the mercy of how well the system is built, and the quality of the data loaded. Here are screenshots of how such an inquiry might develop: The search button is a useful start where a key word related to an area in which information is needed can be typed. If such a word is AIDS, given the data has already been loaded and how the system is prompted, the results can be seen in Figure 19.1.

Figure 19.1 shows which programmes contain the search word, that is, which programmes include information on AIDS. Beyond these stats, one can proceed and browse through each of the units in those modules that contain the search word and get to the actual content. This type of a search can be refined using a number of filters so that the results contain only what is relevant. These filters are shown in Figure 19.2.

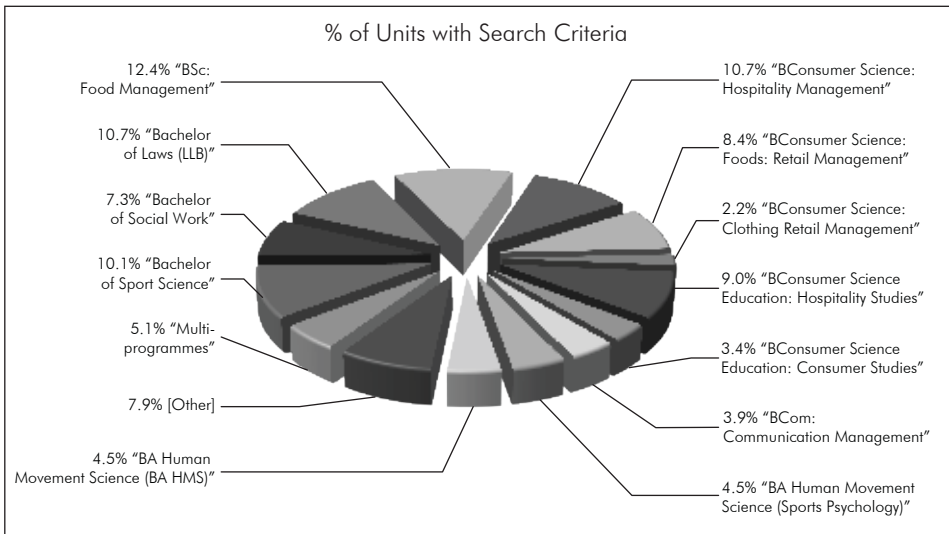


FIGURE 19.1 Search results for 'AIDS' in the curriculum



FIGURE 19.2 Screenshot of content with links to units and modules

In the curriculum analytics view, a few modules can be pulled side by side with their topics spread over the calendar and viewed in a unit overview report (Figure 19.3). It is in this ‘space’ where conversations about gaps, redundancies, sequencing, and coherence can be initiated and followed through. Though the view provides topics taught in the modules, there are links to the full data of the content taught. Groups of teaching staff looking at the data together are able to raise questions about cognitive levels, curriculum load, gaps and redundancies in their curriculum and explore ways in which these can be attended to. Staff can investigate how a number of curriculum principles apply in their curriculum and thus reduce the gap between theory and practice.

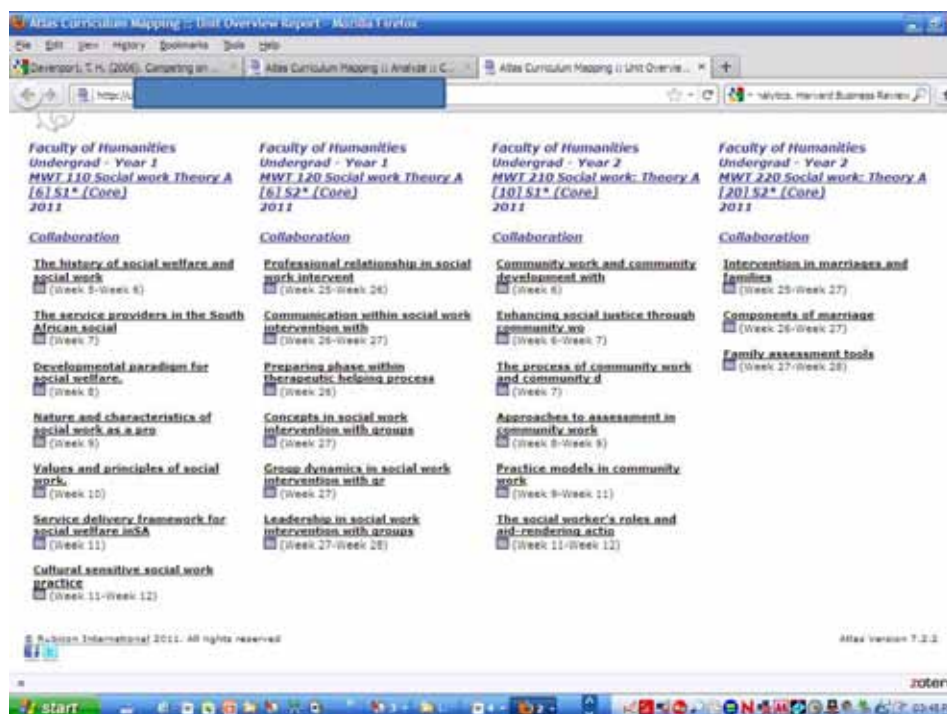


FIGURE 19.3 Unit overview report

THE CONCEPTUAL AND THE TECHNICAL INFRASTRUCTURE

It is necessary, however, to problematise the need for both conceptual and technical infrastructure when teaching and learning is concerned and not to take for granted that both are a given. It is only when both are well considered and catered for that one can talk about good cyber infrastructure for curriculum, the kind that will enable both delivery and inquiry. There are lessons learnt with the adoption of learning technologies in higher education. The adoption of Learning Management Systems (LMSs) revealed a clear distinction of how in some institutions the acquisition of these

systems became a mere technical project and how in others it was a conceptual one. As argued elsewhere (Madiba 2009:257), there was an emergent distinction in terms of those who concentrated on building the physical (technological) infrastructure to ensure availability of the necessary technology within the institution and those who made sure they armed staff with conceptual tools that would enable them to engage with the technology and use it to enhance teaching and learning. For those who were in a practitioner-led environment⁸⁵ the battle was more conceptual than technical. It was about building the necessary understanding of what learning is, and how to improve it. The focus was to dedicate institutional effort of implementing e-learning towards ensuring that this understanding exists and hence the need to spend a long time on developing the necessary staff competencies.

Those who concentrated on the technical side only missed an opportunity to ensure that the acquisition of the LMS resulted in improved teaching and learning. The same sentiments were echoed earlier by Weigel (2002) when he argued that if an infrastructure is to be built for depth education in higher education, it does not only require smart classrooms, wireless campus networks, or significant technical skills. His argument was that “the make-or-break infrastructure requirements for depth education are more conceptual in nature, and they begin with faculty” (Weigel 2002:102).

Conceptual infrastructure is a construct that has been adopted to refer to the theoretical (and conceptual) knowledge necessary to use available technology tools to enhance teaching and learning (Madiba 2009). The construct implies that sound theoretical knowledge of teaching and learning provides access to conceptual tools. A combination of these conceptual tools and the advances and affordances of technology can lead to innovative teaching and learning. Both the technical and the conceptual are necessary and the actual strength lies in how the two are intertwined. Whereas the learning management system (at least in its existing form) requires conceptual infrastructure as a prerequisite for good teaching and learning to take place, the use of a curriculum mapping system provides a platform on which to build this type of infrastructure. Where enough effort is placed in creating the electronic platform for curriculum mapping, the loading process becomes engaging and resembles an environment as if one is working with an avatar that will be asking questions every step of the way to ensure that the curriculum data loaded make sense and are pedagogically sound.

PUTTING THE MAGNIFYING GLASS ON THE CURRICULUM

It is necessary to find ways of what it means to put a magnifying glass on those structural aspects of the curriculum that can bring both the macro- and the micro-levels of curriculum to the fore. Programme description documents need to receive more attention than is the case currently, though one can argue that there is a higher level (the exo-level) that should be the starting point and that is at the graduate

⁸⁵ There was a difference in terms of whether the implementation of the LMS was ‘practitioner-’ or ‘management-led’.

attributes' level – what the curriculum has to achieve beyond the programme, its worth at an institutional, national and international level. It becomes useless to have these statements spelled out somewhere else in the institution with no direct links to what is being taught and how it is being taught. What a good curriculum mapping system can allow is to create the much desired links among the graduate attribute statements, programme description, professional bodies' criteria and standards where they exist, the individual modules or courses associated with a specific programme, and to drill down to the units within the modules. Documenting curriculum across these levels provides opportunities to ask questions about how those links can be created and how they should be strengthened. In terms of curriculum analysis it provides deeper opportunities to interrogate the relevance of these statements (graduate attributes) and the quality of programme description documents.

Working with curriculum mapping has provided ample opportunities to revisit the almost forgotten SAQA-registered versions of programme description documents. The CM environment exposes the conceptual tools that exist, those that should be used to interrogate what those exit level outcomes (ELOs) mean or are supposed to mean and how they should be translated into teaching and learning practice. This cannot happen without taking a step back and asking if the ELOs are fit for purpose. At the meso-level the CM environment creates space for questions on articulation, progression, coherence and logical sequencing to surface. This happens alongside possibilities to explore where gaps and redundancies exist in the curriculum; that is, across the different modules or courses. It is in this context where the Higher Education Qualifications Framework (HEQF) apparatus become enlivened. Qualification descriptors acquire specific functions; they become tools to investigate how to differentiate a programme that aims to provide vocational and technical skills from the one that aims to cater for academic knowledge and skills. What does this mean in terms of programme design and delivery? How useful is this differentiation?

In the same way level descriptors acquire functional application when one has to examine logical sequencing, progression and coherence of modules in a programme. They provide a grammar through which the language of sequencing can be appropriated for use. The allocation of credits in programmes and modules moves away from being a technical and arithmetic issue (as long as they add up!) to ways in which questions of breadth, depth, scope and level can be interrogated. Those involved can begin to clarify their own thinking about what to look for in order to understand whether a programme or a module is overloaded or whether it is too scanty or even shallow in terms of curriculum coverage.

Credit allocation can be taken to the micro-level where a 'credit map' within a module can be drawn. This is where units within a module are mapped and in the process one asks questions about the level of engagement envisaged in each module. What content, what teaching, learning and assessment activities will be involved, when and at what level? The real challenge here is not to give statements about these questions,

but to design the teaching, learning, and assessment plans and activities and make content choices in such a way that answers to these questions are provided. Instead of empty claims about active or transformative learning and constructive alignment, the CM environment asks how all such will be achieved. The lecturers get to ask themselves: By the way, what does all this mean anyway? The visibility or non-visibility of those ideals (student engagement, active learning, and transformative learning, for example) in the developed plans becomes a topic for rich conversations.

Part of what will happen at this level of engagement is to give meaning to the essence of notional hours. As curriculum data are being loaded into the system, useful information is being gathered on the consistencies or inconsistencies that exist as far as credit allocation is concerned. Within this context, it becomes easier to interrogate the conceptualisations of what is incorporated in the notion of credit allocation: Does it only involve implied notional hours? How does, what happens in the classroom (in cases where there is face-to-face teaching), continue to occupy students long after they have left (the classroom)? How is content taught in such a way that sends students on a rigorous journey to search for more? What about the level at which the outcomes to be achieved are pegged? What about the nature of the content to be learned? Responses to these questions serve as examples of how curriculum quality apparatus are translated into practice and how they become tools for curriculum inquiry.

At a practical level a well-developed CM system will engage the role players in a process where they have to bring in the graduate attributes a programme has to nurture, as well as the exit-level outcomes and associated assessment criteria, and give them visibility in all the plans associated with the delivery of modules within that specific programme. This becomes an opportunity to think through which module will concentrate on what aspects of the attributes and the ELOs, and at what level (first, second, third year and so forth). Documenting the curriculum in each module becomes a way to address this type of a planned and logical 'spread'. The template within which the documenting happens should be kept dynamic and flexible enough to ask all the relevant questions and to create space for the necessary answers. The actual process starts at unit level within a specific module and yet the template asks what ELOs and graduate attributes this unit will address. Through the assessment plan the environment will ask at what level assessment tasks are pegged and in this way call for relevant level descriptors. In the 'standards profiling view' one can get a report of which outcomes were associated with which modules and which of those outcomes were implied (or excluded) in the assessment plans. What would happen is that the graduate attributes and ELOs would be preloaded so that when one works with the module and its units it would be possible to allow for the necessary choices and associations. In this way the relationship between the macro- and the micro-level is enabled; one does not necessarily start at either the macro- or the micro-level, but at both.

A well-designed CM environment should provide conceptual tools in the background. For example, when supporting role players in developing teaching and assessment

plan inventories of teaching, learning and assessment approaches, strategies and methods can be hanged in the system as drop down menus. These menus cannot be used as checklists to tick which approach, strategy and methods one will employ in this unit within this specific module. The inventories first and foremost provide a language to enable those involved to talk about teaching approaches, strategies and methods given the nature of the content to be dealt with. It is always interesting to see the level of curiosity and excitement that arises when individuals are exposed to these inventories. The biggest advantage is that because these cannot be exhaustive lists, technology allows quick expansions and additions where there is a need to do so. The inventories create significant stops at which role players are enthused to take a break in the documenting journey of their curriculum and to ask: By the way, what is this (an approach, strategy or method)? and to pursue further questions like: How do I personalise this within my teaching practice? This works far better than inviting lecturers to the training room to come and workshop teaching methods. When the latter option is followed, these are discussed in isolation and application is highly threatened.

The content part works in a similar mode: the environment asks what knowledge, skills, and values are to be targeted in this unit within this specific module as a way of addressing the envisaged graduate attributes, ELOs and in some cases professional bodies' standards and criteria. This is where ample evidence has been gathered about how entrenched the knowledge-based approach to curriculum delivery is. It is a huge struggle in many cases to get lecturers to talk about anything else as content beyond the knowledge aspects of what has to be taught. One has to be more careful here as the word *content* is synonymous with *knowledge* to many. The assumption here is that content is not limited to knowledge only, but that it includes skills, attitudes and values, and that before one can claim integration there should be some refined thinking in terms of what is really involved.

Many lecturers would immediately spell out the disciplinary knowledge of what they have to teach and in the process ignore the accompanying skills and values. This might be one reason why students do not fully acquire the necessary graduate attributes, since many of these transcend beyond disciplinary knowledge. One can even argue that to ignore some of these skills and values denies students the tools needed to engage with the very disciplinary knowledge put before them. This is where arguments about epistemic access find value and where other nuances associated with curriculum become visible. For example, ignoring values does not mean that what is taught is value-free. It actually opens an avenue to pin down the hidden and the null⁸⁶ curriculum, especially as argued in critical educational literature. CM brings to the fore and instigates conversations to confront these types of issues and in this way enriches 'lines of inquiry' in an institutional curriculum development project.

⁸⁶ See Michael Apple's (2004) 'The Hidden curriculum' and 'Nature of Conflict' in *Ideology and Curriculum* and Jonathan Jansen's *Knowledge in the Blood*, 109-110.

LINES OF INQUIRY

There are many questions to be asked when continuous improvement is the guiding principle in curriculum development and teaching and learning as a whole. A CM environment that is well configured helps in asking this one self-reflexive question: How well am I teaching? In an environment where the culture of quality development is to be strengthened to supersede that of quality assurance there are many more significant questions to pursue, such as:

- Is there alignment horizontally and vertically across and within modules; internally and externally across units within modules?
- What about constructive alignment between what is taught, how it is taught, what is assessed and how it is assessed?
- What has been lost in the planned curriculum as against what is taught; how significant is the loss?
- What absences and presences are visible in the curriculum and what impact do they have on student learning?
- What about cognitive demand?
- What about gaps and redundancies?
- How well documented are decisions to change the curriculum from time to time; how are these changes tracked and theorised?
- What about articulation across co-existing units and modules within a programme and possibilities for credit transfer?
- What informs decisions to change curricula within registered and existing programmes?
- How do institutions, faculties and departments keep track of changes made?
- How are those who teach afforded the opportunity to question and debate changes made to the curriculum they have to deliver?

These questions find form and existence when curriculum mapping is embraced. Attempts to systemically follow these lines of inquiry and pursue answers are rendered impossible and fail to lead to productive inroads into curriculum and teaching and learning reform; that is in cases where there are no supporting systems to enable such processes. The work of English (1980, 1992) and Frase, English and Poston (1995) in curriculum management and auditing was moving into sterile quality assurance conclaves until curriculum mapping was repurposed and moved in the direction of quality development. Jansen (2009:194) articulates the challenges of how some curricula evaded the “modular-based curriculum radar screen” and “the sweeping reforms of five years of curriculum change” in a university. He further indicates how more than 500 modules made it almost impossible to scrutinise each learning unit where the line of inquiry was “to determine the extent to which it shifted the deeper understanding of race, knowledge, and identity toward a more open, tentative,

and democratic knowledge of school and society” (Jansen 2009:194). Curriculum mapping offers the opportunity to work through each unit of all the modules involved, and the challenge is to embed the questions to be asked into the system so that (re) developing the module and its units becomes the same chore as responding to the tough questions that have to be asked. Those involved with the modules have to ask themselves these questions long before any external reviewer comes. Configured in this way the CM environment becomes a platform for reflective and reflexive dialogue for module owners and teams, so that long before any other stakeholder can demand accountability, they would have engaged in self-evaluation of their curriculum.

The developed template used in the CM system can easily be converted into a programme/module/unit evaluation rubric. A well-informed translation of quality apparatus can provide evaluation tools for other areas at the different levels of the curriculum. For example, how do we know if exit-level outcomes are sound and if programme description is appropriate, that is, given all the disciplinary, institutional, national and international imperatives that the programme has to respond to? Lessons learnt from the process of curriculum mapping provide rich data from which to set and strengthen an evaluation agenda for curriculum practices in a contextualised manner. How does curriculum in the programme, in the modules and in the units (of the modules) compare internally (within the programme, across the modules and units) and externally (with programmes in other institutions)?

ANY BLIND SPOTS OR DOWNSIDES?

Curriculum mapping is beginning to gain popularity in higher education internationally. Uchiyama and Radin (2008) argue that for higher education, CM can support a culture shift, from one that values individualism and autonomy to one that values collegiality and collaboration, fostering respect for the professional knowledge and expertise and allowing all participants to examine, or re-examine, their individual and collective beliefs about teaching and learning in a structured and safe setting. It is interesting to hear lecturers say how much of a ‘first’ it is for them to have the opportunity to ask questions to their colleagues about what goes before and what comes after their modules with data in front of them. This is the one strength about the system: it organises curriculum data within a programme and across programmes in such a way that one can have a helicopter view of where what is covered and yet also drill down to the finer details of the coverage.

The same strength can be viewed as a downside by others. As Uchiyama and Radin (2008) argue, those who would want to cling to the culture of “individualism and autonomy” will not welcome a system of this nature. To them it will be too much exposure, allowing colleagues to ask informed questions about the what, how and why of their teaching. For them the system will bring in interference and threaten their autonomy.

Another aspect that raises concerns is that when teaching staff become exposed to the system for the first time, they do not appreciate the learning curve they face in order to be able to use the system. Though technology system and product designs have moved to a reasonable level of intuitiveness, some new users still feel highly intimidated. It is useful to develop and continuously improve the end-user interface in a system like this so that it remains friendly and familiar to new users. This is the reason why the research and development part of the project should remain active.

ENABLING TECHNOLOGIES AND IMPLEMENTATION CHALLENGES

Udelhofen (2005) indicates that there are now a number of curriculum mapping software programs that allow users to perform sophisticated tasks to enhance their mapping experience. This is true. Yet, even with such a variety and level of sophistication in the context that informs the work in this chapter there was a great need to customise and to ensure that the software ‘speaks’ the intended language of quality development within a South African higher education context. Care had to be taken to ensure that the system articulates as closely as possible to the conceptual tools, principles and evaluation criteria implied in curriculum practice in higher education. Besides allowing the university community to wrestle with conceptual tools associated with curriculum delivery, the project provides an opportunity to investigate system requirements for such an institution-wide agenda and to establish what technologies are available to support such a venture. This adds another exciting part to project research and development with many possibilities for innovation.

An area that should receive immediate attention is that of ensuring interoperability with other existing data management and web-based systems in the institution. For example, it will add great value if the CM system is easily able to share data with the learning management system. If well configured, the development of study (and learning) guides should be supported by curriculum maps. Curriculum maps should inform the use of computer-based testing systems.

When curriculum maps are fully developed and institutional curricula are well captured there are possibilities to create multiple and varied web-based views in such a way that various stakeholders (internal and external to the institution) are given access to what is of relevance to them. This possibility has yet to be fully exploited. This includes the possibility of providing students with a web version of curricula to assist in making meaningful choices and sound combinations. With the developments in HTML 5, information on curricula can be made accessible to students from their mobile phones, thus to some extent eliminating the long queues that make programme and course registration a nightmare at many institutions.

CONCLUSION

Working through a number of case studies provides a platform from which to understand the nuanced challenges in curriculum development; for example challenges facing

multi-disciplinary programmes and those with multiple areas of specialisation. Added to this challenge is a scenario where a particular disciplinary area is deemed to be relevant to a variety of programmes and as such the content is repeated across a number of programmes. There are cases where many areas of specialisation compete for inclusion within the same programme resulting in what can be termed *credit wars*: which components are bullied out to keep the total credit at a reasonable count? In a different scenario there are cases where a number of modules with different titles and codes share the same content to the extent that students in these modules can sit in one class for the whole term and write the same examination. Sometimes the same content is offered to groups in different year levels with varied credit allocation and this raises questions about cognitive demand, for example. In another case generic skills (or professional skills) are redundantly offered across the different levels of a programme (first-, second-, third-year level) to fill credit gaps. Thus, generic skills become (unnecessary) credit fillers. These examples illustrate a number of tensions in curriculum design and provide avenues from which solutions to these tensions can be better theorised.

Conversations with academics at the initial stage of engaging in the CM process revealed that part of their interest in the system is motivated by a need to manage the scope of their modules in the allocated time. It is becoming increasingly necessary to provide a systematised approach through which the scope and curriculum workload of a module and programme can be analysed and planned for accordingly. This level of planning as captured in the curriculum map can then inform pace within the module, given the content and the enrolled cohort, thus assisting the lecturer in assessing and determining whether the pace is realistic. Therefore the system can assist in addressing over-teaching (too much classroom teaching), or the reverse in areas where applicable. Handling workload issues within curricula is another area that needs better theorising.

Study guides appear to be the main detailed curriculum records within the university setting, that is, in addition to the year books whose information is skeletal. Where extra documentation is available, the format and content is greatly varied. The existing CM cases provide ample evidence that there is much curriculum information that is sitting with experienced academics and is not recorded anywhere. Such a scenario threatens the induction of new academics into the departments because curriculum implementation knowledge is not handed over and therefore it is lost. New academics often find themselves reinventing the wheel instead of improving what exists. Curriculum development becomes a very tedious process that is often compromised in an attempt to create time for research. Once module curriculum maps are developed, improving them becomes a lighter task in the subsequent years and in the process the understanding of various strategies for good curriculum delivery deepens.

The use of senior and postgraduate students to help in the initial loading of curriculum data into the system adds a special feature to the process. It is not only a way to

free lecturers for a deeper and more rigorous involvement; it opens up student participation to curriculum design and development. When students are allocated to load programmes for which they are enrolled or have already gone through, they are provided with a platform to reflect on their curricular experiences and to offer some critical evaluation that can enhance improvement. Students have expressed how working within the system has helped them to develop insights into the curriculum.

Overall, curriculum mapping provides a way to make curriculum more explicit. It allows those responsible for curriculum delivery to question their understanding about how specific content has to be taught and why, and in the process seek to understand the nature of the content better. In other words, Bernstein's constructs of verticality, grammaticality, classification and framing (Muller 2006) can be better explored in an environment where curricula are mapped. The availability of curriculum maps can serve as data to grapple with what "knowledge and knower structures" can mean for better pedagogy and educational reform (Maton 2006).

Conceptualising curriculum mapping in ways articulated here promises to move curriculum inquiry into the fourth era as envisaged by Wadsworth (2010). The mapping process creates a buzz about curriculum delivery and consequently about teaching and learning. Many questions are brought to the surface. This becomes more critical in the research-oriented university where teaching has not always received the same attention. Curriculum mapping holds promise to valorise teaching under such circumstances. Curriculum development (together with design and delivery) is turned into a living activity and lecturers in their module and programme teams are forever reminded to stop and to reflect and to grapple with the many lines of inquiry that surface throughout the process of creating curriculum maps. With the maps that are created, better ways to explore questions of identity, power relations, agency and transformation, among other things, emerge. Those who dare to become active action researchers assume their agency and provide brokerage to mobilise further conversing, observing, reflecting, learning, changing and acting for better curriculum implementation.

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20

AN APPRECIATIVE INQUIRY APPROACH TO CURRICULUM CHANGE

Marianne Bester

INTRODUCTION

Change in higher education is generally undertaken at times of pressure on efficiency, effectiveness, responsiveness and transformation of systems and practices. Pressures for change come from the macro- (international and national pressures), meso- (institutional) and micro- (academic departments, communities of practice and individuals) environment within which we operate. Change is a constant and unavoidable feature of personal, professional and organisational life in the education sector. Living with change and managing change has become an essential skill for higher education teachers in South Africa.

The transition from an apartheid state to a post-apartheid society created conditions for fundamental changes at all levels of education in South Africa. This change of government that accompanied the shift to a democratic state also triggered widespread change in higher education in South Africa. The challenge after 1994 has been to redress past inequalities and to transform the higher education system to serve a new social order, to meet pressing national needs, and to respond to new realities and opportunities (RSA DoE 1997:7), providing an opportunity for universities to enhance their purposes. Most change in higher education arises from systemic and organisational sources in which there are multiple and contested policy initiatives (Pennington 2003:4). This is a familiar scenario in higher education institutions in South Africa if we take, among others, the implementation of outcomes-based education, the restructuring of post-school sector and the implementation of the Higher Education Qualifications Framework (HEQF) into account.

Pennington (2003:4) warns that “the volume, scale and complexity of contemporary change create a sense of almost continuous ‘white water’ at all levels within higher education institutions”. Change of this scale and complexity cannot be absorbed organically, it requires “a sophisticated blend of management, collegiality and simple hard work over a prolonged period of time” (Robertson, Robins & Cox 2009:32). It is

useful to think of higher education institutions as large, complex social systems which continually change, adapt and invent in unpredictable ways through the everyday conversations and interactions of people (Jackson 2004:1). Apart from the fact that it requires skilful management and a coordinated effort of people working together to bring about educational change, it also requires staff engagement in a generative, collaborative and creative process of envisioning the future. Arguing that educational systems are in essence about human beings and human experiences and that they exist as a result of real people coming together to learn and grow through individual and collective experiences and effort, it is clear how important it is to focus our attention on the quality of what we do, how we do it and why we do it, as measures of success.

Based on a curriculum review and design action research project at a post-merger university of technology (UoT) in South Africa, this chapter attempts to show how resistance to change can be overcome to unleash a culture of creative and constructive engagement that encourages the development of collaborative learning communities in the institution. The chapter also reports on work in progress where a strengths-based generative approach such as Appreciative Inquiry (AI) is being used to engage higher education teachers in curriculum review and design.

Firstly, the context of change related to higher education is briefly outlined. Secondly, the key aspects, principles and processes of AI are described using the 4-D cycle of AI. Thirdly, the chapter reports on how AI has been used to move away from the deficit-based paradigm of a 'what's wrong and how do we fix it' framework into a strengths-based, generative and co-constructing paradigm for reviewing and designing curricula. Examples from literature on the use of AI to bring about educational change in general, but change in curriculum design in particular, are also provided. Finally, the chapter briefly reports on work in progress at this post-merger UoT in South Africa using a strengths-based approach to empower and engage higher education teachers in curriculum review and design.

THE CONTEXT OF CHANGE

World-wide, the higher education sector and its institutions are operating in an unpredictable, changing environment. Barnett (2000:257) argues that in a complex world higher education institutions are required to handle within the frameworks available to the institution facts, data, evidence, tasks and arguments, while by contrast in a supercomplex world these frameworks "by which we orient ourselves to the world are themselves contested". Fullan and Scott (2009) argue that it is important to understand the context of change that relates to how universities keep in step with a rapidly changing environment, but more importantly, how universities as knowledge organisations evolve and adapt to external and internal pressures. Pennington (2003:6) explains that organisational contexts can vary in a number of significant ways and can involve growth and expansion (more of the same, scaled up and spread wider), diversification (all or some of the existing activities with additional elements), contraction

(a reduction in both the scale and character of the current agenda), discontinuity (phasing out of some or all of the existing activities) and innovation (doing something completely new to complement or replace existing activities). The current change climate in higher education often requires higher education institutions to undertake a number of these processes simultaneously. There are many ways of thinking about change: for some situations rational, linear ways of thinking about change and how it is accomplished might be appropriate, but for more complex change projects in higher education more flexible ways of thinking are probably more useful (Jackson 2004:2).

Since 1994, the South African higher education sector has been required to comply with new forms of governance, admit vastly different student bodies, tailor curricula and qualifications to a National Qualifications Framework and achieve transformation objectives of government such as access and equity, while also experimenting with different modes of delivery. In addition, South African higher education institutions are required to demonstrate higher levels of accountability in terms of strategic planning, link funding to output, contemplate quality assurance and monitor targets of student and staff profiles. Three pillars emerged from the higher education policies devised by the post-1994 South African government: increased participation resulting in greater diversification of student bodies, greater responsiveness to the needs of industry and society as a result of globalisation, and increased co-operation and partnerships, both nationally and internationally. These aspects are exerting a significant influence on higher education curricula nationally (Breier 2001).

Barnett and Coate (2005:71) argue that curriculum change is dynamic and fluid and that “any curriculum will be developed within its particular milieu, or the social, cultural and physical environment in which it is located”. Barnett (2000:256) poses the following important questions to be considered in relation to the impact of change on curricula: To what extent are higher education institutions (HEIs) responding to change? What are the sources of change to which disciplines respond? What kind of analytical framework (or frameworks) is going to be helpful in understanding curricula and curriculum change?

Bringing about change in a higher education institution is difficult, since higher education institutions are resistant to change, and as a general rule academics tend to resist changes that are perceived to threaten their core values and practice (Fullan & Scott 2009:25; Robertson *et al* 2009:33). Where substantive change initiatives are undertaken, it is most likely that they will generate high levels of disturbance, resulting in explicit forms of personal resistance and a state of denial among academic staff (Botha 2001; Jansen 2003). In discussions with higher education colleagues, it has become evident that some are resisting the uncertainty of significant changes such as the re-curriculation of virtually all of the existing qualifications offered by universities of technology in South Africa to meet the requirements stipulated in the HEQF (RSA DoE 2007). A number of these staff members display a range of behaviours such as despondency, disbelief, frustration, uncertainty, confusion, passiveness and even

anger at the educational system in South Africa. White (1996, cited in Cooperrider, Whitney & Stavros 2008:xxi) indicates that “if you combine a negative culture with all the challenges we face today, it could be easy to convince ourselves that we have too many problems to overcome – to slip into a paralyzing sense of hopelessness”.

Although Carl (1995) contends that teachers should be active participants in the process of curriculum design, given the current circumstances academic staff members at UoTs are reluctant to engage in Higher Education Qualifications Framework (HEQF) re-curriculation. Addressing this challenge would require overcoming the resistance to change as a result of the recent restructuring of the higher education sector, exploring the nature of the proposed change, turning feelings of uncertainty into opportunities and envisioning a future filled with new possibilities through the re-development of curricula that are responsive to the needs of stakeholders and society in general. It calls for an approach to curriculum change that would encourage high levels of participation and co-operation in the institution; acknowledge the socio-cultural context of the situation; accelerate the pace of the change process; and acknowledge the complexity of the situation by synthesising multiple change initiatives effectively within the institution. At the same time this approach would acknowledge the human dimensions of academic life and be rooted in the life-giving forces of the institution. In the next section, appreciative inquiry is suggested as a strengths-based generative and powerful approach to positive change, but first the notion of higher education institutions as complex adaptive systems is discussed.

COMPLEXITY THEORY AND COMPLEX ADAPTIVE SYSTEMS

Complexity refers to conditions in the universe that are too complex, diverse and integrated to understand in simple mechanistic ways. Complexity theorists suggest alternative ways of looking at the world, moving beyond simple cause-and-effect models, linear predictability and a reductionist approach to understanding phenomena by replacing them with non-linear and holistic approaches in which dynamic interactions between multiple variables are prevalent. Complexity theory embraces change, uncertainty and unpredictability. It relates to the notion of universities as complex adaptive systems, described by Stacey (2003:237) as consisting of “a large number of agents, each of which behaves according to some set of rules. These rules require the agents to adjust their behaviours to that of other agents. In other words, agents interact with, and adapt to, each other”. Complex adaptive systems consist of a collection of interacting elements that function as a whole, stressing the importance of interpretive perspectives that are transphenomenal, transdisciplinary and transdiscursive (Davis & Sumara 2008; Mason 2008; also see Costandius earlier in this volume).

Complexity theory suggests a movement towards bottom-up development and change, local and institutional decision making and a re-assertion of student-centred learning supported by the process rather than the content of learning. Complexity-based curricula would be “dynamic, emergent, rich, relational, autocatalytic, self-organised,

open and existentially realized by the participants, connected and recursive” (Morrison 2008:25). Teachers would act as facilitators, co-learners and co-constructors of meaning, enabling students to connect new knowledge to existing knowledge, while students have to exercise autonomy, responsibility, ownership, self-direction and reflection. Morrison (2008:26) describes learning as “a joint voyage of exploration” that is dynamic, active, experiential and participatory in nature. Appreciative Inquiry is rooted in complexity theory and social constructionism.

APPRECIATIVE INQUIRY AS A CHANGE AGENT IN HIGHER EDUCATION CURRICULUM DESIGN

Appreciative Inquiry is a mode of action research (Cooperrider & Srivastva 1987), an exploratory process for positive change that identifies the best of what is happening in the present moment to pursue what is possible in the future. The term *appreciative inquiry* was first coined by David Cooperrider and Suresh Srivastva (1987). These authors argue that conventional action research has largely failed as an instrument for advancing social knowledge of consequence and has not, therefore, achieved its potential as a vehicle for human development and social-organisational transformation. Appreciative Inquiry scholars argue that deficit discourses and traditional problem-solving approaches typical of action research exaggerate weaknesses in a system – an approach that may become a degenerative spiral.

Appreciative Inquiry (AI) is both a change management process and an “appreciative mind-set”, as defined by Bushe (2007:32), which holds the potential for inspired and positive change and involves a collaborative search for those strengths and life-giving forces which are found in individuals, groups, organisations and/or institutions. AI is a challenge to conventional methods of providing leadership and managing change in an organisation or institution. Different from conventional change processes that are mostly problem-centric, AI is possibility-oriented and life-centric (Cooperrider *et al* 2008:3). It is a relational process of inquiry, grounded in affirmation, appreciation and value enhancement. As a result, people become engaged, thus creating more energy and sustainable momentum, a renewed sense of purpose and the development of shared understandings.

Although AI has been described in a myriad of ways, Cooperrider *et al* (2008:3) offer a practice-oriented definition:

Appreciative Inquiry is the co-operative co-evolutionary search for the best in people, their organizations, and the world around them. It involves the discovery of what gives “life” to a living system when it is most effective, alive, and constructively capable in economic, ecological, and human terms. AI involves the art and practice of asking questions that strengthen a system’s capacity to apprehend, anticipate, and heighten positive potential.

AI is based on the simple assumption that every organisation or institution has a “positive core”, ‘something that works well’ as defined by Cooperrider *et al* (2008:34).

The positive core relates to those strengths, opportunities, achievements and awards, financial and technical assets, distinctive competencies, embedded knowledge structures, insights, leadership and management capabilities, values, visions of possible futures and unexplored potential influences that would direct the change agenda and magnify the positive core or life-giving forces of the institution. The following four propositions underlie the practice of AI, according to Cooperrider *et al* (2008:4):

1. Inquiry into 'the art of the possible' in organisational life should begin with appreciation.
2. Inquiry into what is possible should yield information that is applicable.
3. Inquiry into what is possible should be provocative.
4. Inquiry into the human potential or organisational life should be collaborative.

AI is a powerful approach to positive change that builds on the positive core of an organisation or institution, allowing for engagement in both transactional (action planning) and/or transformational change (values-vision-mission identification and alignment). AI helps people create visions for a system based on people's personal experiences, expertise, knowledge and skills. It uses the best things about the system from the past and present that they have experienced and allows them to carry these strengths forward into the future. In 2002, Tom Gonzales, President of Front Range Community College in Colorado, USA said: "What's remarkable about AI, is its focus on what has worked successfully in the past and how it applies to the future. Academic institutions are about tradition. What better legacy for faculty and administrators than to share with a new generation an energetic new vision based on what has been successful?" (Stetson 2002:2).

Bushe (2007:30) states that one of the central sources that influenced the creation of AI was Gergen's generative theory. Gergen (1978:1346) argued that the most important thing social science can do is to give us new ways to think about social structures and institutions that lead to new options for action. An appreciative mindset increases generativity, influencing people's ability to create change. Watkins and Mohr (2001:30) declare that individuals or organisations grow in the direction of what they repeatedly ask questions about and focus their attention on. AI works because it acknowledges humans as social beings who create their identities and knowledge in relation to one another, hence creating knowledge-rich, strengths-based, adaptable learning organisations (Whitney & Trosten-Bloom 2003:19).

This philosophy is an underlying principle of the re-curriculation and development process, allowing staff, students and stakeholders to inquire into the best of the past, while creating a new vision or focus for the future using the 4-D cycle of Appreciative Inquiry as depicted in Figure 20.1 and the application of AI in curriculum design presented in Table 20.1.

THE APPRECIATIVE INQUIRY PROCESS

The five underlying principles of AI (social constructionist, simultaneity, anticipatory, poetic and positive) come to life through the design of the basic AI process, which is typically presented as a cycle of four phases known as the 4-D cycle (illustrated in Figure 20.1). The five core principles of AI are the essential beliefs and views that contribute to the ‘blueprint’ of Appreciative Inquiry (Watkins & Mohr 2001; Whitney & Trosten-Bloom 2003). They are briefly discussed below.

The constructionist principle

Social constructionism is a fundamental underpinning of AI. It suggests that we have considerable influence over the nature of the realities that we perceive and that to an extent we actually create our realities through language and shared symbolic and mental processes. Human knowledge and institutional destiny are intricately interwoven. Cooperrider *et al* (2008:8) argue that to be effective change agents it is important to understand and analyse the institutional processes and practices as living, human constructions. Fanghanel and Trowler (2008:307) support this view by arguing for the acknowledgement of the socio-cultural context in teaching and learning in higher education as well as for a deeper understanding of the complexity of change by paying attention to “structures and communities within them, and with regard to how individuals behave within those – their ability to respond”. Fullan and Scott (2009:76) emphasise that all staff have a role to play in supporting change initiatives in higher education institutions and that change-capable universities operate in a responsive, collaborative, team-based and focused manner. Curriculum change will come about as a result of a highly interactive process that brings people from all levels of the institution together to learn from one another and with one another, building relationships and expanding collective wisdom.

The principle of simultaneity

This principle recognises that inquiry is intervention and that the seeds of change are implicit in the questions we ask. The questions asked set the stage for what is to be discovered and the information gathered become the stories from which the future is conceived, discussed and constructed. Questions have the provocative potential to give form to identities, relationships and patterns of living. They are intrinsically related to reflection and action.

The anticipatory principle

Collective imagination and discourse about the future are collective resources for generating change and improvement. Cooperrider *et al* (2008:9) state “human systems are forever projecting ahead of themselves a horizon of expectation that brings the future powerfully in the present as a mobilizing agent”. Success or failure hinges, in part, on the images institutions hold of the future. Motivating images of the future can mobilise powerful, positive and collective action within a higher education institution.

The poetic principle

This principle is based on the valuing of sharing of information as a way of gathering information about the organisation or institution that includes not only facts, but also the feelings and emotions that people (academic staff and students) experience. Recognising that these stories (like poetry) can be told about any aspect of organisational and/or personal life and performance and that these are open to meaning making, institutional life can be expressed as a narrative, co-authored by its various stakeholders. The practice of AI starts with the selection of an affirmative topic. Based on the notion that human systems such as higher education institutions move in the direction of what they study, the affirmative topic is selected strategically to move the institution in the direction of its highest ideals and values of its stakeholders. The affirmative topic selected for an Appreciative Inquiry process is the main focus of the change process.

The positive principle

At the heart of the Appreciative Inquiry practice is the quest to discover what gives life to an organisation when it is at its best. Building and sustaining momentum for change requires large amounts of positive affect and social bonding. Bushe (2010) argues that simply focusing on the positive aspects, without a focus on the generative nature of these aspects, will not result in successful change. It is therefore important to strengthen the generative aspects by engaging academic staff members, students, alumni and other stakeholders actively in the review and development of higher education curricula.

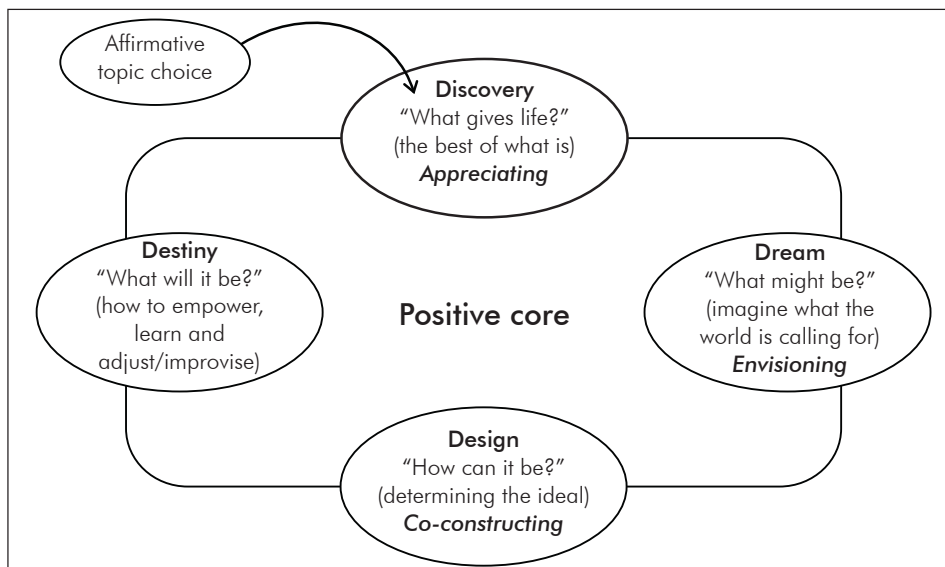


FIGURE 20.1 Appreciative Inquiry 4-D cycle (Source: Cooperrider et al 2008:34)

With reference to Figure 20.1, the “positive core” is defined by Cooperider *et al* (2008:437) as that which makes up the best of an organisation or institution and its people. Since AI is a dynamic and iterative process of positive change in an organisation or institution, it is addressed through the 4-D cycle of discovery, dream, design and destiny. The positive core or life-giving forces of the institution is interwoven into the phases of the 4-D cycle. AI is more than just defining questions, conducting interviews and gathering data. It is a process of engagement whereby all relevant and interested people in an institution will participate in positive change.

Since the focus for change in an organisation or institution is defined by the affirmative topic of the AI process, the affirmative topic selected for this study is based on the strengths currently existing in the higher education institution under investigation to embrace the challenges presented by a curriculum review and development process brought about by the implementation of qualifications aligned to the Higher Education Qualifications Framework in South Africa.

Discovery phase

In the discovery phase, a whole-system or institutional-wide inquiry into the positive core is undertaken. The positive core focuses on those elements that give meaning and life to the institution. The institution embarks on a process of discovery to value the best of the ‘best of what is’ available in the institution. This phase typically begins with appreciative interviews asking questions that are designed to elicit, validate and revitalise the positive aspects associated with the strengths of the academic department, current curricula and existing partnerships. The discovery phase is typically conducted using focus group discussions or one-on-one interviews with academic staff. This essentially builds a live, collective database of institutional excellences that includes metaphors, imagery and affects in addition to concrete examples such a curriculum data.

Dream phase

The ‘best of what is’ or positive core of the institution is amplified throughout the dream phase, creating a results-oriented vision in relation to the strengths of the institution. Working together in department and/or faculty groups, academic staff members are encouraged to focus on the life-giving forces that contribute to the success of the current curricula, while also envisioning the HEQF aligned curricula of the future. The dream phase often involves large groups of people working together to share key success factors of the current situation and to develop ideas of what the future can be.

Design phase

The positive core of the institution is further woven into the institutional social architecture through the design phase, creating “provocative propositions” (*ibid* 162) by asking key questions about the ‘ideal’ situation. During the design phase academic staff identifies key facets of institutional systems and structures that will be needed to support the realisation of their collectively generated new or revised curricula.

Provocative propositions form the basis for developing vision-guided action plans for implementation in the next phase. These provocative propositions bridge the ‘best of what gives life’ to the institution as identified in the discovery phase, with ‘what might be’ as envisioned in the dream phase, with ‘how’ to bring the required change about in the design phase.

Destiny phase

Finally, the affirmative capability of the institution as a whole is strengthened by devising implementation strategies to make the intended curricula a reality. The destiny phase also requires an institution to identify, communicate and celebrate positive changes, innovations and results of the AI process. It is a time for people to reflect on what has changed and to recognise the efforts of those who have participated in the change process.

Table 20.1 outlines how the 4-D cycle of AI (Cooperrider *et al* 2008:34) has been aligned to different stages of a curriculum design process and proposes questions to be considered at each stage of the process.

TABLE 20.1 Aligning Appreciative Inquiry to the curriculum design process

	Appreciative Inquiry	Curriculum design
Define	Define the ‘topic for inquiry’ – frame the question and the inquiry protocol and the participation strategy.	In this case, the focus is on developing responsive, engaged and transformative HEQF aligned curricula in a post-merger higher education institution in South Africa.
Discover	Discover the positive core or the ‘best of what is’ of the institution – its opportunities, core values, assets and competencies, ideas and aspirations for innovation, hopes and best practices	<p>In discovering the best of what is, it is important to create opportunities for academic staff in departments to uncover their strengths, those life-giving forces that can be used to build on in the future. Academic departments conduct self-audits to determine the strengths and effectiveness of current practices. A strength-opportunity-aspirations-results (SOAR) strategic analysis is used to explore the positive core of the current system (see Table 20.2). In the discovery phase of the 4-D cycle of AI engagement with various stakeholders such as current students, recent graduates, employers, industry experts and current staff using suitable and appropriate survey instruments to gather data is important.</p> <p>Appropriate questions to consider during this phase are:</p> <ul style="list-style-type: none"> ▪ What are we currently doing that works well? ▪ How successful are our current curricula in meeting the needs of our stakeholders? ▪ What are the key epistemological, practical and ontological elements of our current curricula? ▪ How can these be enhanced in future? What do our students learn? ▪ How do our students learn? Are our current programmes viable and sustainable and how can these be improved?

Appreciative Inquiry	Curriculum design
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Dream</p> <p>Fully envision the impact or results of taking the positive core of the institution and expanding it, building upon it</p>	<p>In this phase of the AI approach to higher education curriculum review and design; it is important for academic departments to envision the future, to use available opportunities and new developments in their fields of study to provide strategic direction to their aspirations. Departments should draft a vision and mission statement and compile a strategic plan with clear and achievable objectives. It is also important to develop an action plan and responsibility chart analysis (e.g. RAEW: Responsibility, Authority, Expertise and Work allocation) to guide the process. This kind of activity provides a simple but effective way of improving teamwork, decision making and communication in academic departments – key elements of any change process.</p> <p>Appropriate questions to consider during this phase are:</p> <ul style="list-style-type: none"> ▪ What is our vision for the future? ▪ Does the vision of the department align to the institution’s vision, mission and strategic plan? ▪ What are the strategic objectives of the department? ▪ What are the new developments in our field(s) of study? ▪ What are the new opportunities available to us? ▪ How can the competitive edge of the academic department be enhanced? ▪ How can we improve the viability and sustainability of programmes? How should our curricula change and why?
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Design</p> <p>Create vibrant, actionable descriptions of the high leverage items in the institution’s social architecture – changes which when implemented will catapult the institution into the future described by the dream and changes which when implemented will serve to sustain the momentum of positive transformation</p>	<p>This phase of the AI process requires academic staff to engage with curriculum theory and to apply principles associated with the design of responsive, aligned and transformative curricula. It is also important to consider teaching, learning and assessment strategies and methods based on sound educational principles of constructive alignment as defined by Biggs (2002). Academic staff should work jointly in teams to explore appropriate forms of knowledge in career-oriented curricula, write intended learning outcomes using learning taxonomies that would encourage the development of high order thinking skills, appropriate practical skills and values and attitudes that would be transformative in nature. Curriculum maps, programme and subject guides are also developed. The creation of suitable learning spaces, the establishment of facilities and the acquisition of technology and equipment to support delivery of new and/or revised programmes should also be carefully considered during this phase.</p> <p>Appropriate questions to consider during this phase are:</p> <ul style="list-style-type: none"> ▪ How do we align the new HEQF-aligned curricula to the vision, mission and strategic plan of the institution? ▪ How do we develop curricula that are responsive to the needs of our stakeholders? ▪ What are the key aspects of higher education context and curriculum theory to consider? ▪ How do we empower staff to teach the new curricula? How do we align systems and structures to support the new curricula? ▪ What facilities, equipment and technology are required to support delivery?

Appreciative Inquiry	Curriculum design
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Destiny</p> <p>Invite inspired action rather than imposed action plans and ongoing inquiry into the positive as an implementation strategy.</p>	<p>In this phase of the AI approach to higher education curriculum design, academic departments are finalising implementation strategies to phase in new HEQF-aligned qualifications and to phase out old curricula.</p> <p>Appropriate questions to consider during this phase are:</p> <ul style="list-style-type: none"> ▪ How can we sustain the new developments? ▪ Do we have sufficient capacity to support the new curricula? ▪ How do we know that we have been successful in designing curricula that are responsive to the needs of stakeholders, transformative in nature and aligned in terms of intended learning outcomes, assessment criteria, tasks and teaching-learning activities? ▪ What instruments do we use to measure the effectiveness of the new curricula?

EXAMPLES OF USING APPRECIATIVE INQUIRY TO ENHANCE CURRICULUM CHANGE

There are many examples available in AI literature of how AI has been used in educational projects: Stetson (2002) reports on projects in the USA and Canada; Coghlan, Preskill and Tzavaras (2003) report on a study done at Hills and Dales Child Development Centre; Rogers and Fraser (2003) report on the use of AI for evaluation; Davis (2005) outlines the use of AI at Baker College; Giles and Alderson (2008) report on the use of AI to create transformative learning experiences for students in a family literacy project and Bushe (2010) reports on various educational projects for the British Columbia Ministry of Education. A number of studies have been done on the use of AI to enhance curriculum design processes, for example the enhancement of an informal curriculum of the School of Medicine at Indiana University (Cottingham, Suchman, Litzelman, Frankel, Mossbarger, Williamson, Baldwin & Inui 2008:715-722). McNamee (2003) describes the use of AI in an academic department of a private high school to assess the department’s curriculum and to develop collaborative working relations.

This chapter briefly outlines the use of AI in “a conflicted educational context” as described by McNamee (2003:25-29), since her account closely resembles the current situation at the post-merger higher education institution in South Africa. McNamee (2003:25) explains that the generative nature of AI allowed her to invite the academic staff into a conversation about their academic programmes and to explore the strengths of the existing programmes. McNamee (2003:28) reports that by allowing colleagues to develop more collaborative, respectful working relations while conducting a curriculum review through sharing stories of their own love and excitement about teaching, they were initiated into a different and transformative conversation. During the discovery phase, academic staff members described their strengths, values and talents among themselves and these were captured on paper. Using the output of the discovery phase, academic staff members were asked to call out the features that would help them to create an ‘ideal curriculum’. The structure of the ‘ideal curriculum’ focused on teaching, learning and assessment strategies as well as on curriculum

alignment. Recurrent themes emerged from the discussion on the 'ideal curriculum', informing the design phase of the AI approach. In this phase, academic staff members used the themes that emerged from their collaborative discussions to develop the new curriculum and to devise action plans for implementation. In the final phase of the AI process, academic staff members engaged in a conversation about how to implement the new curriculum. McNamee (2003:37) reports that often what have appeared to be immutable problems (such as the lack of trust and respect in this particular case study) were viewed within "a context of possibility rather than failure". AI allowed this group of academics to create a safe and creative space to explore their strengths and to envision the future curriculum.

THE USE OF APPRECIATIVE INQUIRY AT A POST-MERGER UNIVERSITY OF TECHNOLOGY IN SOUTH AFRICA

Finally, this chapter reports on the use of AI at a post-merger UoT in South Africa in an attempt to deal with the defensive behaviour of academic staff and their resistance to change and to engage them actively in curriculum reform and development.

At the beginning of the academic year, the Appreciative Inquiry approach was carefully outlined to a group of senior academic staff members, who would form an institutional forum to drive the AI process and act as change agents in their respective academic departments and faculties to bring about the required curriculum change. The curriculum review and design process was closely aligned to the different phases of AI as outlined in Table 20.1 above. An affirmative topic was formulated, namely developing HEQF-aligned, responsive, engaged and transformative curricula. The institutional forum grappled with the following questions that relate to the key drivers of the AI process: What is the most appropriate form of engagement, given our change agenda, our departmental culture, time frames and available resources? How will we overcome resistance to change in academic departments? What is our change agenda? What is our inquiry strategy?

KEY DRIVERS OF THE APPRECIATIVE INQUIRY PROCESS

Form of engagement

Each academic department has appointed a senior academic staff member to represent the department at an institutional forum where these staff members are empowered to act as change agents in their respective departments and faculties. This institutional forum meets once a month, while the change agents meet more regularly in their faculties and academic departments to engage actively with their colleagues. These change agents adopted a strengths-based approach in terms of their engagement with academic staff.

The role of change agents

Building a critical mass to support change is vital and it is therefore worth investing time in analysing the levels and strengths of commitment of academic staff in academic departments who would be involved in the change process. Change agents are most effective when engaging others in the change process and will typically find themselves working with three kinds of groupings as defined by Pennington (2003:9), namely:

1. rational adopters, those individuals who respond to new ideas by analysis, discussion and evaluation;
2. pragmatic sceptics, those individuals who remain unconvinced that what is being proposed will be better than that which presently exists. They often have to be convinced by presenting proof of benefits, through seeing successful practice in other similar contexts, and
3. resisters/defenders, those individuals who are unconvinced about the merits of change. They will often work actively to prevent the changes being adopted and embedded.

The most important role of change agents using AI is to ask unconditionally positive questions to guide the change process while creating increased opportunities for participation and involvement of stakeholders. Change agents are required to reconcile competing views whilst progressively building up a momentum of support for change. Effective change agents are sensitive to the informal processes of leadership, vision building and developing groups to create and sustain meaningful interventions in their existing (and frequently unexamined) practices.

Inquiry strategy and technique

A curriculum review and design strategy with reporting lines, clear and achievable objectives and timelines is developed to guide the process. When reviewing existing curricula departments focus on the following key aspects: quality of existing programmes, strategic relevance of current and future programmes, and viability and sustainability of current and proposed new programmes. The curriculum design strategy is underpinned by curriculum theory and curriculum design principles outlined in an institutional policy on curriculum design. It is also important to use a SMART approach – specific, measurable, achievable with realistic targets within a reasonable timeframe to drive the process.

A SOAR (Strengths, Opportunities, Aspirations and Results) analysis based on the model of Stavros, Cooperrider & Kelley (2005:405) is used in the discovery phase of the 4-D cycle to allow academic staff members to:

- become active participants in the curriculum design process;
- build on their current strengths, in other words the positive core of the academic department and its programmes;

- discover new opportunities for growth, e.g. partnerships with other higher education institutions;
- visualise goals and strategic alternatives, e.g. the development of research focus areas;
- identify enabling objectives, e.g. collaborative curriculum design teams in departments;
- design teaching, learning and assessment strategies to enhance good teaching and improve student learning, and
- implement a strategic plan for the academic department that is dynamic, continuous and a living document.

The SOAR analysis is different from a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) where half of the time the thinking is positive and the other half of the time the thinking is negative. The SOAR analysis allows participants to co-create their desired future throughout the process by inquiry, imagination, innovation and inspiration. It is a strategic inquiry into the heart of the academic department, yet with an appreciative intent. Table 20.2 outlines some questions to consider when conducting a SOAR analysis in an academic department. The responses obtained during such a focus group session at a UoT in South Africa are also included in this table.

TABLE 20.2 SOAR analysis compiled by an academic department

	Strength	Opportunities
Strategic inquiry	<p>What are the strengths/qualities in terms of curriculum review and development available to you as a department?</p> <ul style="list-style-type: none"> ▪ Keen interest in teaching, learning and assessment matters in higher education ▪ Good subject-specific knowledge and skills ▪ Good organisational skills ▪ Teaching expertise ▪ Some staff members’ ability to motivate others ▪ The ability to see the bigger picture ▪ Good leadership skills in department ▪ Excellent links with industry relevant to academic programmes ▪ Hard-working staff members ▪ Established research focus areas ▪ Dedicated staff who care about their students ▪ Good infrastructure with equipment and technology to support the academic programmes 	<p>What are the best possible opportunities available to you as a faculty to review current curricula and to design HEQF-aligned curricula?</p> <ul style="list-style-type: none"> ▪ Facilitating change among staff – less resistance and more eager to know and be part of the process ▪ HEQF re-circulation that could act as catalyst to improve teaching and learning ▪ Allowing one to reflect on one’s own teaching and learning practices ▪ Creating staff development opportunities ▪ Establishing interdisciplinary co-operation ▪ Liaising closely with industry and professional bodies to develop curricula responsive to the needs of industry ▪ Opportunities for networking/crossing boundaries ▪ Creating opportunity to see the weaknesses within the programmes ▪ Acknowledging the HEQF as an opportunity for change/to rethink what the new curriculum should consist of to meet needs of stakeholders ▪ Identifying opportunities to see the gaps in the market to offer accredited programmes that align with the objectives and outcomes of professional bodies ▪ Engaging in research or having the opportunity to attend conferences/publish article ▪ Drawing on the collective strengths and support of the change agents

	Aspirations	Results
Appreciative intent	<p>What would you like to achieve in future as a department in terms of curriculum design?</p> <p>What significant changes and improvements in teaching and learning would you like to bring about in your department?</p> <ul style="list-style-type: none"> ▪ Conduct a thorough situational analysis with enhanced collaboration from various stakeholders ▪ Evaluate current curricula to determine effectiveness by using suitable instruments to obtain feedback from stakeholders ▪ Establish new partnerships to support programmes ▪ Seek new opportunities to expose students to the world of work ▪ Develop curricula that are responsive to the needs of stakeholders and society in general ▪ Benchmark qualifications nationally and internationally ▪ Revive the lunch time discussions on teaching and learning /creating opportunities for healthy debate and discussion ▪ Enhance a student-centred approach to teaching ▪ Implement effective interventions for “at risk” students ▪ Align programmes with requirements of professional bodies to enhance competitive edge ▪ Enhance quality of student learning, teaching and assessment practices 	<p>What would the measurable results be of your achievements/aspirations as a department?</p> <p>What are the measures of recognition or rewards that should be used to motivate you to achieve these results?</p> <ul style="list-style-type: none"> ▪ Meeting regularly to monitor progress ▪ Hosting staff development workshops and training programmes ▪ Developing strategic plan and objectives with measurable targets and clear timelines ▪ Improving quality of teaching and student learning ▪ Establishing research niche areas with improved research output ▪ Enhancing interdisciplinarity of curricula ▪ Achieving better co-operation between academic departments and faculties

REFLECTIONS ON THE USE OF APPRECIATIVE INQUIRY

Based on their own experience of using AI in large organisations across the world, Whitney and Trosten-Bloom (2003) provide a number of reasons why they believe AI works so well. They argue that it generates opportunities for people to share their strengths, stories and aspirations, allowing them to build relationships and granting everyone an opportunity to be heard, which prompts people to relate to the socially crafted nature of their organisational realities. Using AI to bring about large-scale change in a higher education institution is a long-term project and the use of AI is approached not as invention or event, but as a continual, systemic, self-reinforcing

journey of discovery and learning for all involved in the process (Fitzgerald, Murrell & Newman 2002). One measure of success for an AI initiative is to determine to what extent an organisation has enhanced its capacity for positive change by asking questions such as: Has the inner dialogue of the organisation transformed from problem-oriented, deficit discourse to strengths-oriented, affirmative discourse? Have the patterns of conversation, interaction and relationships become more life-centric?

Appreciative Inquiry interviews conducted by the author elicited the following responses about the strengths of change agents in academic departments at the UoT under investigation:

... willingness to learn from others and using the knowledge to reach a goal ...

I think recognising my personal strengths helped me in getting buy-in from the department on curriculum issues.

... able to embrace and welcome change ...

... ability to see the bigger picture ...

I am able to act as a conduit across all these levels [department, faculty, institution] to help further the process of HEQF re-curriculation.

... openness to hear view of others ...

Although it is too early to determine the overall success of the AI approach, early signs indicate that academic staff members at the UoT under investigation are more positively inclined towards HEQF re-curriculation in general and that the discovery of current and past strengths in collaboration with stakeholders has proven to be a fruitful learning experience for all. Change agents currently working in academic departments to bring about curriculum change have also indicated that their interactions with colleagues have inspired them in the following ways:

... to re-examine subject content and teaching and learning approaches in the department ...

... to broaden my own knowledge of curriculum design, implementation and evaluation ...

... to be part of a community of practice regarding curriculum development ...

... to change mindsets ...

I think there is a wonderful opportunity to work across departments.

... to develop responsive curricula by engaging the advisory board and alumni ...

... to have a task team dealing with curriculum issues with a clear assignment of duties, roles and a structured plan with deadlines to achieve milestones ...

Majority of staff have a keen interest in academic development, so there is fertile ground for curriculum work.

Bringing curriculum development and teaching and learning down to the individual lecturer's level to engage with curriculum and teaching and learning scholarship as part of their jobs ...

The feedback from the UoT change agents clearly indicates that the use of AI brings out the best in people, which in turn generates unprecedented co-operation across different levels of the organisation. It shifts the focus of the curriculum inquiry to those realities that are sources of positive energy promoting a generative, collaborative and creative process of envisioning the future.

CRITIQUE OF APPRECIATIVE INQUIRY

It is, however, important to acknowledge that Appreciative Inquiry remains a mode of action research with little self-reflection or critique to evaluate the process as an action research method. Grant and Humphries (2006) question the overwhelming positive orientation of the AI process and propose that critical theory provides a useful contribution to the evaluation process of Appreciative Inquiry. They suggest that the focus on what is 'good' be extended by considering another dimension of appreciation. Appreciation in their opinion may also mean to know, to be conscious of and to take full or sufficient account of, thus encouraging a much deeper understanding of organisational dynamics.

Van Haar (2002, cited in Grant & Humphries 2006) argues that AI and its evaluation should not be understood as two separate and independent activities, but that these should be seen as an interwoven and ongoing process. Rogers and Fraser (2003) focus mainly on AI as a means of evaluation, acknowledging that the approach is best suited to long-standing programmes which may require an infusion of positive energy, or when the purpose of the evaluation is not to identify unknown problems but to identify strengths and build courage. In summary, both the literature and the personal experience of the author indicate that Appreciative Inquiry can be a valuable and useful technique when the purpose of the evaluation is not to identify unknown problems, but to identify strengths within an organisation. By addressing problems and weaknesses from an appreciative stance, those participating feel better equipped to address challenges.

CONCLUSION

In this chapter, the pressures and challenges of educational change in higher education in South Africa have been outlined with specific reference to staff perceptions at a post-merger university of technology in South Africa. Appreciative Inquiry as a strengths-based generative and powerful approach to positive change was outlined in detail. The five-dimensional technique of define, discover, dream, design and destiny was closely aligned to the curriculum review and development process with examples from literature of how AI has been used to enhance curriculum design. McNamee's (2003) account of and the author's personal experience of how AI was used as a change agent

in a conflicted educational context to engage academic staff members in curriculum design indicate clearly the generative potential and the collaborative nature of AI to bring about positive change.

Finally, the chapter outlined how AI has been used during a re-curriculation process at a post-merger higher education institution in South Africa. Based on the accounts of academic staff members who have acted as change agents in academic departments, it is evident that bringing about institutional change through AI and engaging academic staff actively in curriculum design is a slow, unpredictable and iterative process. AI has generated an impetus towards transforming existing curricula at this institution by creating opportunities for appreciative conversations among colleagues, by generating positive thinking about the future and by envisioning a shared destiny. In the process, higher education teachers are no longer spectators, standing on the periphery of the change process, but are more actively engaged in the process of curriculum review and design, empowered to make a difference.

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● ABBREVIATIONS

- AAU Association for African Universities
- ACE American Council on Education
- AD Academic Development
- ADSP Academic Development Support Programme
- AERA American Educational Research Association
- AHEF African Higher Educational Forum
- AI Appreciative Inquiry
- AIR Association for Institutional Research
- ANC African National Congress
- APD Academic Professional Development
- ASHE Association for the Study of Higher Education
- ASP Academic Support Programme
- ASPECT Academic Support Programme for Engineering in Cape Town
- CAT Computer Analysis Toolkit
- CE Community Engagement
- CESM Classification of Educational Subject Matter
- CHAE Centre for Higher and Adult Education
- CHE Council on Higher Education
- CHESD Centre for Higher Education Studies and Development
- CHESP Community Higher Education Service Partnership
- CHET Centre for Higher Education Transformation
- CM Curriculum Mapping
- CPD Continuing Professional Development
- CPE Continuing Professional Education
- CPL Continuing Professional Learning
- CPUT Cape Peninsula University of Technology
- CREST Centre for Research and Science and Technology
- CSBL Community service-based learning
- CRC Curriculum Review Committee
- CSC Centre for Student Counselling
- CSD Centre for Science Development
- DELNA Diagnostic English Language Needs Assessment
- DHET Department of Higher Education and Training
- DoE Department of Education
- ECSA Engineering Council of South Africa
- EGS Education Guarantee Scheme
- EHE Encyclopaedia of Higher Education
- ELOs Exit Level Outcomes
- ELT Experiential Learning Theory

CURRICULUM INQUIRY IN SOUTH AFRICAN HIGHER EDUCATION

EPU	Education Policy Unit
ESF	European Science Foundation
ESL	English as a Second Language
FET	Further Education and Training
GER	Gross Enrolment Rate
GTM	Grounded Theory Methodology
HBI/HDI	Historically Black/Disadvantaged Institutions
HE	Higher Education
HED	Higher Education Development
HEI	Higher Education Institution
HEL	Higher Education Looking Forward
HELTASA	Higher Education Learning and Teaching Association of Southern Africa
HEMIS	Higher Education Management Information System
HEQC	Higher Education Quality Committee (of the CHE)
HEQF	Higher Education Qualifications Framework
HERDSA	Higher Education Research and Development Society of Australasia
HESA	Higher Education South Africa
HET	Higher Education and Training
HICD	Human and Institutional Capacity Development
HPCSA	Health Professions Council of South Africa
HSRC	Human Sciences Research Council
IBSS	International Bibliography of Social Sciences
ICT	Information and Communication Technologies
IEHE	International Encyclopaedia of Higher Education
IF	Institutional Forum
IKS	Indigenous Knowledge Systems
IMF	International Monetary Fund
ISI	International Scientific Information
ITLS	Improving Teaching and Learning for Success
JIPSA	Joint Initiative for Priority Skills Acquisition
LHEA	Leaders of Higher Education in Africa
MODE 1	A mode of knowledge that is mostly disciplinary in nature
MODE 2	A mode of knowledge that is mostly trans-disciplinary, trans-institutional and heterogeneous
MS	Microsoft
NASFAS	National Students Financial Aid Scheme
NCHE	National Commission on Higher Education
NEPI	National Education Policy Investigation
NGO	Non-governmental Organisation
NMMU	Nelson Mandela Metropolitan University
NPHE	National Plan for Higher Education
NQF	National Qualifications Framework

NRF	National Research Foundation
NWG	National Working Group
OBE	Outcomes-based Education
OECD	Organisation for Economic and Cultural Development
PBL	Problem-based Learning
PBRF	Performance Based Research Fund
PGCE	Postgraduate Certificate in Education
PGCHE	Postgraduate Certificate in Higher Education
PGCHET	Postgraduate Certificate in Higher Education and Training
PGDE	Postgraduate Diploma in Education
PGDHET	Postgraduate Diploma in Higher Education and Training
PQM	Programme and Qualification Mix
QPU	Quality Promotion Unit
REDIBA	Research Development Initiative for Black Academics
RHEP	Research on Higher Education Programme
RPL	Recognition of Prior Learning
RSA	Republic of South Africa
SA	South Africa
SAAAD	Southern African Association for Academic Development
SAADA	South African Academic Development Association
SAAIR	Southern African Association for Institutional Research
SAARDHE	South African Association for Research and Development in Higher Education
SAC	South African College
SADC	Southern Africa Development Community
SAICA	South African Institute for Chartered Accountants
SAJHE	South African Journal of Higher Education
SANTED	South Africa-Norway Tertiary Education Development
SAQA	South African Qualifications Act
SARUA	Southern African Regional Universities Association
SEDA	Staff and Educational Development Association
SL	Service Learning
SOAR	Strengths, Opportunities, Aspirations and Results
SoTL	Scholarship of Teaching and Learning
SRC	Southern Regional Congress
SRHE	Society for Research into Higher Education
SSRC	Social Science Research Council
SU	Stellenbosch University
SWOT	Strengths, Weaknesses, Opportunities and Threats
TQM	Total Quality Management
UCT	University of Cape Town
UFS	University of the Free State

CURRICULUM INQUIRY IN SOUTH AFRICAN HIGHER EDUCATION

- UKZN University of KwaZulu-Natal
- UMALUSI The quality assurance body in South Africa for General and Further education
- UNESCO United Nations Educational Scientific and Cultural Organisation
- UP University of Pretoria
- UWC University of the Western Cape
- VCD Visual Communication Design
- WASC Western Association of Schools and Colleges
- WiR Women-in-Research
- ZPD Zone of Proximal Development

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At once evocative and suggestive, this exemplary book gives me hope that educators and scholars across the world will seize the opportunity to self-reflect and enlarge and enrich both their research and their practice in ways that will markedly contribute to the revitalisation of the higher learning in the twenty-first century. The urgency of the need for revitalisation of both research and practice in this domain of inquiry cannot be overstated.

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In looking at the construction of curriculum from a trans- and multidisciplinary perspective at the higher education level, this book initiates and supports the issues of curriculum design and purposes, especially in fields outside the discipline of educational studies.

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A great strength of the book is its ability to face out from South Africa and deal with theories and issues to do with curriculum which affect all of us in higher education ... an interesting, engaging and vibrant book.

Prof Gina Wisker

Brighton University, UK

Together the chapters contribute to a book that is quite broad in scope, whereas the individual chapters add a depth of analysis that is often lacking in higher education studies. The chapters are on the whole very rigorously researched, well written and offer many fascinating insights into both the concept of 'curriculum' but also of change in a contemporary higher education context.

Dr Kelly Coate

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