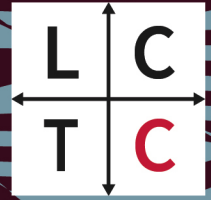


SHERRAN CLARENCE



TURNING ACCESS INTO SUCCESS

Improving University Education
with Legitimation Code Theory

Legitimation Code Theory



TURNING ACCESS INTO SUCCESS

Teaching is crucial for supporting students' chances of success in higher education, yet often makes limited use of theory to foster contextualized, systemic understandings of access and success. Theorized yet practical ways of empowering university educators are needed to develop their practices and turn access into success for their students. This book harnesses Legitimation Code Theory 'LCT' to inspire university educators to understand, reimagine and create socially just teaching and learning practices. Chapters bring this powerful theory to bear on real-world examples of curriculum design, inclusive practices, cumulative learning, assessment practices, and reflection. Each chapter guides the reader through these cutting-edge ideas, illustrates how they can make real differences in practice, and sets out ways of thinking that educators integrate those ideas into practice. The outcomes will help students access the powerful knowledge and ways of knowing they need for success in higher education.

Sherran Clarence is a Research Associate in the Centre for Research, Teaching and Learning (CHERTL) at Rhodes University, South Africa. Her research and practice focus on academic staff and student development in the areas of literacies, academic writing, doctoral knowing and becoming, and teaching and learning development in higher education.

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Improving University Education with
Legitimation Code Theory

Sherran Clarence

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For my mum, Jeanette



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PREFACE

I wrote this book for two main reasons. The first is that I found, in the writing I did following the completion of my PhD in 2014, that what I really wanted to say to educators was going to take a larger amount of space than a paper (or three) could provide. I needed to make a more complex, connected argument about enabling socially just teaching and learning and this book made that possible. The second reason is that I have found, in my own teaching and in the work I have done with colleagues in staff and student academic development, that the theories I have chosen to use in this work have been helpful and empowering. These theories, especially, have been the inspiration and enabler of change, growth and improvement in the educational environments I have been part of thus far. I wanted to share what I have learned because I believe it could help readers think about themselves, their context and their students in ways that can open up more critical conversations about what higher education really needs to do to widen student success.

I have been working in higher education for almost twenty years now, primarily in academic support and development. When I started out as a postgraduate and then professional tutor, I had no larger frameworks to draw on to think about, reflect on or understand what my students or I were doing (or where and why things were going awry). I fell back onto a great deal of what I critique in this book: an individualized notion of success and the idea that my students needed to try harder, work smarter and be better prepared for university. I considered myself a hard-working, committed teacher; I cared about my students and genuinely wanted all of them to do well.

But not all of them did well, and I wonder sometimes if I inadvertently hindered the success of some of my students, especially those already at a systemic disadvantage relative to their peers from supportive, well-resourced backgrounds. I wonder if my feedback, for example, while intending to helping them write better assignments, actually confused them because it assumed they could understand and act on my

advice without struggle. I wonder if my classroom engagement and activities also assumed the ability of students to participate in the same kinds of ways, not accounting for diversity in how they made sense of their learning.

Reflecting on this early teaching practice now, I can see there were two main constraints on my ability to create and enact better, forward-looking teaching and learning practice. First, I was teaching academic literacy and writing courses that were positioned adjacent to rather than embedded within the disciplinary writing and learning practices with which they aimed to assist students. Our materials and activities were decontextualized in terms of the knowledge that students read and wrote about and the formats or genres in which we asked them to write. In my modules there were few overt and specific connections between their disciplinary writing and the more general forms we worked with. This created gaps in their understanding, and also in students' ability to enact the desired disciplinary literacy and knowledge practices in their disciplinary assignments. This kind of teaching deepened the divide for many students between what was expected as successful academic learning and what they were able to do. This was, as you may imagine, a wider divide for working-class students from poorer or less resourced home and school backgrounds.

The second constraint on my teaching practice was that I was not formally or overtly encouraged by course coordinators or colleagues to use learning theory to develop a more coherent understanding of my own teaching practice as it related to students' learning. I had a sense of what success looked like and what teaching and learning could be, but it was tacit and remained un-critiqued for several years. Without recourse to ways of connecting my practice to theory that could help me see differently what I was doing, my ability to become a more effective educator was constrained.

This all changed in 2009 when I began to work as the coordinator of a university writing centre in Cape Town. I realized I needed a theorized way of thinking about writing and literacy development and found my way to New Literacy Studies and academic literacies research. This was transformative, both professionally and personally. The critical work done in this field enabled me to develop a more systemic, less individualized perspective on learning and teaching. I was able to see and critique the ways in which my own prior work had contributed to the maintenance of an unequal status quo and the exclusion of many students from access to powerful knowledge and ways of knowing, being and doing at university. This was not easy, but it was enormously empowering, both for me and for many of the colleagues I worked with during my time in the Writing Centre.

Working with theory enabled us to see and solve problems in ways that went beyond 'common-sense' and ad hoc approaches. We could develop a way of working that connected our approaches to learning with critical theory and with other colleagues and peers working in similar ways in other writing centres and academic development environments. We could connect individual students' struggles with their written assignments to larger, theorized notions of recognizing and enabling successful writing in and across the disciplines. This approach

strengthened our ways of working and our sense of purpose as writing development practitioners, and it helped us to assist the students and lecturers who came to us in more contextually relevant and sustainable ways.

During this period I completed my PhD, which used a relatively new sociological framework called Legitimation Code Theory to analyze relations between teaching and knowledge-making practices in two academic disciplines. Legitimation Code Theory enabled me to theorize teaching, learning and writing in higher education in new and empowering ways, complementing the academic literacies theory that was already informing my work at this time. Specifically, using this theoretical framework and its practical 'tools' to critique and change my practice as an educator and an academic developer inspired me and helped me to inspire those I have been fortunate enough to work with in recent years.

I completed this book in June 2020, in the midst of learning how to teach online and how to support my own students and peers via tele-conferences, learning management systems, WhatsApp and email in new and previously under-explored ways. The world has changed, perhaps forever, and we are changed by the global crisis sparked by COVID-19. It has touched every part of our lives, personal and professional. Education at every level has been affected and the last few months have been overwhelming, exhausting and challenging for many educators and students. Yet, as much as this has been a really difficult time, we have been given opportunities to rethink and reimagine what teaching is, what learning is, and how to design teaching and learning that is more inclusive, creative, fit-for-purpose, and empowering for students and lecturers. It is my hope that this book will contribute to ongoing conversations about how to improve higher education teaching and learning, both in remote and contact forms.

I hope you will find the analysis and discussions in the chapters provocative, helpful, and informative. I hope that you will use this book creatively in your own teaching contexts, with peers and students, and that collectively we will continue to strive for more socially just, inclusive, successful educational practice within and across the contexts in which we work.

Sherran Clarence
Cape Town, June 2020

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1

CONTEXT IS KEY

Laying the foundations for 'better' teaching and learning practices

Being a university-based academic these days is hard work. Academic lecturers and researchers across higher education globally have many competing demands on their time and headspace. To be a successful academic you have to be a dedicated and well-prepared teacher, a productive and successfully published researcher, a competent and organized administrator, and an active contributor to your academic or professional community, at the very least. An ability to bid for and secure research funding and to supervise postgraduate students to completion can be added to this list in many contexts, as is sharing your research in the public domain through writing for newspapers or popular online publications, and speaking on television or the radio. You must attend meetings and spend time with students in and out of class, and write and read and think, and mark assignments, and travel to conferences, and so much more, as part and parcel of taking on this role. Many have to do this without the security of tenure. This can be all be overwhelming in and of itself, and this is without factoring in a personal life, which may well comprise several additionally demanding roles.

Teaching presents just as many challenges as it does rewards. I hear this from many lecturers I work with – I feel it myself as an academic – and within many current university environments this has become even harder work over the last few decades. Since at least the 1990s, many universities in the Global South, for example, have been increasing student enrolments. Starting earlier, in the 1970s and 1980s, universities in the Global North have also been growing (see Boquet, 1999; Lillis, 2001), shifting to 'open admissions' or 'mass' higher education (Trow, 1999). In both contexts this growth has led to changes in the composition of the student body: in addition to being bigger, student bodies are more linguistically, socioeconomically, culturally, ethnically and internationally diverse. This has created uncertainty for many lecturers, especially for those who have been teaching for a long time and who learned to teach at university before massification brought these changes. Even lecturers accustomed to larger

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universities and diverse student groups may find it hard to manage challenges presented by both the larger classes and the students' differing experiences of prior learning.

Teaching and learning at university is characterized by sets of practices, enacted between students, lecturers and, in many cases, also tutors.¹ These practices that we create, see and experience are underpinned and shaped by deeper sets of values, beliefs, and ideologies. These assumptions are about the purpose and role of higher education in society and in relation to the economy, the nature of knowledge and being a knower, what success is and how it is achieved. These beliefs, values and ideologies are linked to broader trends or ways of thinking that dominate society. The ways in which society is structured shape what we do, how we act, what we think within our universities because these are part of society. Our graduates need to need to make economic and social contributions to society.

In recent decades, the most notable trends shaping societies and their universities across the Global North and South are neoliberal capitalism and related forms of massification, globalization, and governance. These exist alongside calls for greater social inclusion and social justice (see also Bottrell & Manathunga, 2018; Fataar, 2019; Quinn & Vorster, 2019). The first part of this chapter opens with the context for why this book has been written and why you need to read it. It then moves to consider these trends influencing higher education in large and small ways, specifically at how they inform and define *success* in higher education, and what this means for the development of better teaching and learning practices. The final part outlines how the book is structured, how to approach it as a reader, and details what you can expect to find in the book.

Towards 'better' teaching practice: why you need to read and use this book

Whether you have many years of experience or are new to teaching and lecturing in a university, whether you are tenured or working on contract, whether you have ten students or 500 students, you have the same moral and ethical responsibility: to do the best you can to enable the greatest number of your students to achieve meaningful success. As lecturers, curriculum designers, academic developers, tutors, we need to create the most enabling environments we can with all students in mind, and not just the previously privileged for whom higher education success used to be reserved. While we are not required to do all the work of helping students to become successful – they need to be actively working on developing their knowledge and ways of knowing too – we are certainly not exempt from asking and critically reflecting on crucial questions about what success is, how student learning needs to be enabled and enhanced, and how different structural factors create stumbling blocks for many students.

As lecturers, tutors and academic developers, we have relative power and agency to remove stumbling blocks, to challenge inequalities, and to design and enact teaching in different, more socially just, and more expansive ways. But we cannot

do this time-consuming, emotionally and mentally demanding work alone, and without powerful resources to assist us. In addition to colleagues and peers who share these goals, we need to use theorized and scholarly approaches to change teaching and learning in ways that are contextually relevant, but also connected across higher education systems and structures. In connecting with other researchers and practitioners outside of our own contexts around shared concerns and solutions, we can build knowledge about, challenge and reimagine our practices on a global level. We may well experience different realizations of the dominant trends shaping higher education, and society, around the world, and need to consider these carefully in how we write our curricula, engage with our students, and enable successful achievement. But in spite of contextual differences, these trends also connect us together, and these connections can enable us to share knowledge and contribute across borders to more robust conversations about the purposes and practices of higher education.

In higher education studies as a field of research and practice there are many books, papers, websites and blogs devoted to teaching and learning practice, from curriculum design to teaching with technology to academic writing development. Many of these draw quite tacitly on theory to make their arguments and offer advice, and many present their arguments and advice as a form of common-sense, or practical wisdom. This has led to comments about the atheoretical nature of teaching and learning practice and research, including academic development work (Haggis, 2009; Manathunga, 2011; Quinn, 2012). Yet, there is theory that informs and shapes teaching and learning. A few of the main theoretical frameworks are cognitive learning theory, social learning theory, behavioural learning theory, and critical and social realist theory. The problem for many lecturers, who are specialists in their disciplinary knowledge and related ways of knowing, being and doing, is that much of the theory that informs educational research and practice is difficult to access, make sense of and use in practical, useful ways.² In the field of higher education studies we use theory quite often to analyze teaching and explain what is, and is not, occurring in different contexts, but we seem to struggle to use theory to create better teaching and learning practice. In some instances, theory is even absented in the search for homogenizing 'best' practices that can provide a single, clear to answer to multiple, complex questions and challenges (Jacobs, 2019).

Although a great deal of research in higher education studies cited in the following chapters troubles the notion of finding or creating a one-size, homogenizing set of 'best' teaching practices that can apply across different disciplines, this idea remains a seductive one (Jacobs, 2019). As noted in the opening section, teaching is hard work and the work does not really get easier as our university and wider societal contexts continue to change. Finding a 'best practice' to apply and work with can seem like a relatively straightforward and manageable thing to do in the face of complexity and overwhelm. But the problem with this notion of one 'best' way of doing things is that it reinforces rather limited notions of success. It assumes that teaching and learning across quite different disciplinary, institutional and national contexts is similar enough for one set of assumptions to apply to all of them. This notion also assumes

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that the basis for successful implementation rests with the lecturers and their students, absenting consideration of the different structures that enable or hinder this success. If the 'best practice' does not work, there tends to be a knee-jerk recourse to blame: students, for not working hard enough; lecturers, for not being sufficiently committed; the university, for not being well enough resourced or supportive. All this blame may feel justified, but it is not helpful, or constructive. It becomes a vicious cycle that undermines the probability of wider and deeper student success.

'Access' in this book is understood as Wally Morrow (2015) posited it: as 'formal' access to university places and spaces. You apply, you are offered a place, you take it up and you have access to the university and to all of its services and structures (i.e. the library, IT labs, sports grounds, social spaces, lecture venues, lecturers and so on). But, as Morrow (2015, p. 77) argued, formal access does not automatically grant students access to 'the knowledge that the university distributes'. To achieve success, students need access to the knowledges that universities create, legitimate and distribute, and they need to further have the means to make sense of, use and also critique this knowledge. 'Success' is understood in this book as the ability to use higher education to transform yourself and your life project through 'an intense engagement with [yourself], others and with disciplinary knowledge' (Case, 2013, p. 135). Enabling success, and the enlargement of student agency – students' abilities to grow, act and learn in personally and socially transformative ways – is at the heart of university education. This success cannot just be the expectation or reality for the 'elite' or for the relatively few who have already had ready access to well-resourced schools, educated parents and family members, libraries and computers; it has to become a reality for all students who are granted formal access to university spaces.

In keeping with this critical, nuanced understanding of success, and with a deeper framework that focuses on context as key to understanding student success and responsive teaching and learning practices, this book will seek to develop a notion of *better* teaching and learning practices. Here, 'better' implies ongoing reflection, theorized approaches to teaching and learning informed by a relational view of higher education's contexts, purposes and goals, and a willingness on the part of both the system and the individuals within it to be open to critique and change. Context here does not just refer to where the students and lecturers come from and what kind of university they are working in. It also refers throughout this book to the *disciplines* that students and lecturers are working within, as well as the knowledges, skills and practices, and dispositions or aptitudes that students are required to develop and master. Throughout the book I will be referring to these aspects of teaching and learning as knowledge and ways of knowing, doing and being. These terms are open enough to encompass: skills, such as drawing an accurate vector diagram; practices, such as creating an expository argument; and dispositions and aptitudes, such as how we speak to one another, how we behave, act, dress and interact.

In making a contribution to theorizing and enacting better, more conscious teaching and learning practices in a range of higher education contexts, this book is

placed between alienating or inaccessible theory and atheoretical, homogenizing ‘tips and tricks’ and ‘best practices’. In the chapters that follow, I will explore global issues or challenges lecturers across higher education face in designing and enacting contextually responsive or relevant curricula (Chapters 2 and 3), enabling students’ *cumulative* learning and meaning-making in their specialized disciplines (Chapter 4), and planning and enacting assessment and evaluation in ways that further develop students, and lecturers, meaningful learning and growth (Chapters 5 and 6). All of these issues will be considered through the lens of critical social theories: Legitimation Code Theory and academic literacies theory. The goal in doing this is to show how useful and powerful theorizing your own teaching practice is and to introduce one theoretical framework that has proven useful in making sense of, doing and changing teaching and learning in higher education. My hope is that this will offer new and refined ways of thinking about your own educational practice.

Before considering how the book is structured and how to approach it as a reader, I would like to briefly expand on the ‘context’ mentioned in the title and to consider *access* and *success* more carefully in relation to the focus of the book as a whole.

Troubling dominant notions of student success in higher education

‘Massification’, a term many academics are familiar with now, was coined to describe the mass increase in enrolments across higher education contexts. In the first half of the twentieth century in European and other industrialized countries, higher education was considered an ‘elite’ occupation, available only to a small section of society (Mohamedbhai, 2014). With the growth of democracy globally in the latter half of the twentieth century, higher education opened up to greater portions of the population in these countries, shifting these systems from elite to mass provision of higher education, and in some cases (such as Brazil) to universal provision of higher education (see Trow, 1999). In essence, an elite system can be interpreted as being reserved for a talented and able few, a mass system sees higher education as a right for those who qualify to participate, and a universal system understands higher education as the society’s obligation to the people (Mohamedbhai, 2014). A key effect of shifts towards mass and universal systems is increased heterogeneity in student and also staff composition, in terms of gender, race, class, language, nationality, ethnicity and culture, as well as attendant changes to administrative and educational structures and practices.

Massification as a concept can speak to increased student numbers and it can be extended to consider the effects on university infrastructure, including physical spaces, staffing, physical and virtual resources, and teaching and learning (see Quinn & Vorster, 2019). Mass student enrolments meet two demands placed on higher education: the need for universities to play a greater role in meeting the demands of the knowledge economy for more ‘skilled’ workers; and the need for higher education to be democratized so as to enable access to its benefits for a wider cross-section of students, especially those previously excluded. The outcome of this is supposed to be an increase in social equity, enhanced life chances or social and economic mobility, and greater participation of these students in social and

economic life. This has, however, not been fully realized for reasons we will discuss a little further on and in the chapters that follow. This is linked to a disconnect between the espoused aims of democratized higher education systems and the kinds of outcomes that are actually enabled through the curriculum, teaching, assessment and engagement in wider campus life.

Universities are fundamentally social spaces. Public universities especially, as part of broader public culture, are powerful vehicles for the deepening and development of public participation and democratic citizenship (Giroux, 2002), a purpose which stands in contrast to corporate culture's 'neoliberal' learning subject. The focus in this system, as Giroux indicates, is on the private individual, and on private, personal gains and successes. Coughlan (2006) argues that this belies the link between expanding access to higher education and democratizing it: in systems where this individualistic culture is influential, there is a profound disconnect between the goals of social justice and equitable student access and success and how universities actually make this real for all students. Significantly, this disconnect concerns knowledge: what kinds of knowledge students have access to, who this knowledge is for, how students are able to engage with and use this knowledge, and how knowledge is conceived as part of the 'social justice' or emancipatory purposes of higher education to begin with (Mavelli, 2014).

Rather than expanding the possibilities for genuine success, universities influenced by individualistic values tend to narrow in on an 'ideal' subject they want to create or produce. This notion of who the 'University of X' graduate is, or should be, may tacitly but profoundly inform the design, teaching and assessment of the curriculum, the primary vehicle through which access to knowledge and also ways of being a knower is facilitated. This 'ideal' subject is created through a narrowing of legitimate or valued forms of knowledge and attendant ways of knowing: some bodies, some ways of being, some knowledges, only some histories are accepted and reproduced, which means others are marginalized or actively repressed. Conforming is the path to success here rather than widening the possibilities for different ways of being and different knowledge(s) to be centred, or at least openly valued. Examples that point to pushback against this notion of success are student activism in the United States against Islamophobia and widespread racism on many university campuses (Al-Sharif & Pasque, 2016), and calls for decolonizing knowledge and curriculum and re-centring African subjectivities, knowledges and bodies in South Africa (Heleta, 2016).

To enable greater access to both the public goods of higher education and individualized notions of success, universities have been widening participation or formal access to diverse groups of students since the 1960s and 1970s, many from the working classes who were previously excluded from higher education. But many of the attendant discourses or practices of widening participation and enabling formal access have been couched in different forms of deficit thinking (see Archer, 2007; Smit, 2012). In essence, this means that students who are different from or do not conform to neoliberalism's dominant 'middle class, masculinized "rational" and strategizing subject' position (Allen, Quinn, Hollingworth, & Rose, 2013, p. 434) are marginalized until and unless they can conform to what the system regards as the 'ideal' student, consumer and citizen.

In this system, social inclusion is understood in narrow, non-democratic terms as compliance and passive conformity. You may see this playing out in your context as a conflation between access and inclusion: if students have places at the university and access to all of its services and benefits then they can be considered 'included' in the social of the university. However, we can see in rising student activism on campuses across the Global North and South that the 'social' of the university is not open to all; in both overt and more tacit ways, university cultures and structures continue to include those whose ways of being effectively cohere with what the university values and desires in a 'successful' graduate and exclude others, regardless of their 'formal' access. The role of teaching and learning against this backdrop may be cast as providing students with the accepted or recognized knowledges, skills and identities that will enable them to become successful members of society. But this may be a limited notion of this role if what we are really after is democratic, socially just higher education, and for students to have 'not just skills to reproduce existing power structures, but knowledge to articulate a different vision of the future' (Mavelli, 2014, p. 868).

Over the last two decades, corporate culture (Giroux, 2002) has become a growing influence in university governance and management across the Global North and South. Its values and beliefs are pervasive and are felt both overtly and tacitly in everything from the setting of admissions criteria and allocation of funding and resources, to curriculum design, teaching and assessment practices. This culture is underpinned by an autonomous model of the ideal student learner, characterized as highly motivated, self-regulated, independent, strategic and adaptable (Allen et al., 2013; Boughey & McKenna, 2016). To be a success in this system is to be motivated and hardworking, flexible and strategic, and make the most of whatever learning opportunities you are presented with.

The converse of this, of course, is that students who do not succeed within this system are cast as not properly motivated, independent and strategic, and thus not the 'right' university students. This is a significantly problematic set of beliefs and values for teaching and learning that aims to be just and inclusive; first, it fails to appreciate the importance of the social context in which students and lecturers co-exist within a university. Second, it is unable to see the ways in which the social context is marked by gendered, classed and racialized inequalities that give a lie to the simplistic equation that wider participation equals greater diversity and success (see Burke, 2013; Mavelli, 2014). Behind the supposed universal notion of the motivated, self-reliant, strategic and adaptable student may lie quite specific male, white, heteronormative and middle-class assumptions and world-views, views that are reinforced implicitly by the role-models that dominate many university spaces.

Universities are tasked with contributing to social, political, environmental and economic development through the education of skilled and knowledgeable graduates and the progressive creation of new knowledge (see Green, 1994). But what comprises the social in higher education, or in the societies it serves, is not homogenous or generic. Universities are made up of disciplines and fields of study and within these are different subject areas and foci, all of which together comprise

a heterogeneous ‘map’ of different ways of specializing both knowledge and those who know and use it. This means that, rather than being seen as a force that threatens the academic project and that should be tamed and managed, difference or diversity could actually be seen as a resource. Enabling meaningful social inclusion and social justice through education would then imply widening what counts as valid knowledge and valid ways of knowing and being, rather than limiting these to those which serve the narrow interests of society’s elite, consciously or unconsciously. Yet, this is almost impossible unless we understand and define what counts as *success* in a more expansive, critical and systemic manner than ‘neoliberal’ culture currently does.

One way in which notions of student success are currently being troubled and redefined is through recourse to theories of social justice that are able to explain the systemic, structural and historical nature of current injustices, marginalization and exclusion of certain bodies, ways of knowing and forms of knowledge. Social justice is hard to define in one sentence or a soundbite, as theorists and thinkers come at this concept from different perspectives depending on their disciplinary background and the problems they are thinking through using the concept. Nancy Fraser’s work is perhaps most useful, especially for the arguments made in this book: she understands social justice, and by the same turn, social injustice, as being systemic, structural, and institutionalized (see Fraser 1997; 2008).

Rather than locating the blame for social injustice or the onus for creating greater justice within individuals, Fraser (2008) argues that true social justice can only be created when we dismantle and recreate institutions that hinder the advancement of the many to elevate the few. Her approach helps us to think about and theorize the ways in which universities support approaches to teaching and learning that, either tacitly or overtly, are premised on deficit thinking about student learning and an individualized view of success as achieving the dominant, valued subject identity prized by neoliberal corporate culture (see Burke, 2013; 2015). Within our universities, we need to collectively be mindful of the dominant discourses and approaches to both access and success that those in positions of power use to shape what happens to students, as well as what is expected of lecturers and tutors. If we are unable or unwilling to see the deeper principles that organize the contexts in which we work, we are likely to support and further skewed versions of student success that privilege students who, by virtue of their race, class and gender at least, are already closer to being the ‘ideal’ student and the ‘ideal’ citizen (see also Lockett, 2016).

Practically speaking, we need theories of teaching and learning that can embrace a relational way of making sense of the university, the curriculum, and the point of higher education. Learning – the process of becoming a skilled, knowledgeable, transformed knower who can contribute meaningfully to both economic and social life – is both an individual and social process. Students do need to be responsible, independent and motivated to work hard and try new things. We all need to be these things when we are engaged in learning something new, and most of the knowledge and ways of knowing, doing and being that students encounter at

university are new. But what higher education tends to do – one could argue what it has always done – is to disconnect the individual from the social in terms of understanding how the latter may both enable and limit the development of the former.

I am underpinning the arguments made in the chapters that follow with a systemic view of social justice and equity that challenges the primacy of decontextualized individualism. This larger ideological framework creates a golden thread that runs through the chapters, linking the different arguments made about aspects of developing better teaching and learning practices. This is a choice I have made as a researcher and practitioner in response to the context in which I work, which is grappling with big questions about inclusion, exclusion and social justice in a higher education system marked by significant racial, gender and socioeconomic disparities. This is my context. Yours may be quite different and prompt different overarching concerns for you as an educator and researcher. Apart from these concerns with enabling more socially just educational praxis (theorized practice), what this book really wants to do is make that better practice possible in practical, effective ways through helping lecturers and academic developers consider, theorize, and do teaching and learning differently.

To this end, I have chosen to use a theoretical framework and set of ‘tools’ that can enable this work on two levels. Firstly, the framework I am using here – Legitimation Code Theory or LCT (see Maton, 2007; 2014; 2016) – has at heart a concern with these larger questions this section has pointed to: whose knowledge counts in higher education, in society and why? Who gets access to this knowledge and how? What kinds of meanings matter, and how are these made legitimate, or valued? But LCT is also a practical theory, in that the tools it provides can be – are being – used by lecturers and by students to make different aspects of learning and teaching more open for critique and change, more accessible and comprehensible, and more equitable. This makes LCT useful for the work this book is doing to contribute to current conversations in the field of higher education studies about improving teaching and learning in meaningful, actionable ways.

LCT, a brief introduction

Legitimation Code Theory (LCT) is a sociological framework influential in educational and social research and practice around the world. Scholars in diverse disciplines, such as Political Science, Jazz Studies, Engineering Sciences, English Studies and Biology, are finding the conceptual tools within the framework powerfully useful for exploring, understanding and addressing problems in educational and social contexts.³ Karl Maton began developing LCT during the late 1990s. He began by incorporating, connecting and building on ideas from, principally, Pierre Bourdieu and Basil Bernstein. Research and practice using concepts and insights from LCT is now part of educational and social contexts in many different countries (e.g., United Kingdom, France, Denmark, Mexico, the Philippines, and South Africa). LCT has become both a theoretical framework and a diverse community of practice and scholarship.

LCT understands ‘knowledge as an object of study’ that, while socially created and used, is also ‘real’, in that it has ‘properties, powers and tendencies’ (Maton, 2014, pp. 9–10). This means that while knowledge is created by actors living and working within specific social and historical contexts, it cannot be reduced to those contexts or to the motivations and beliefs of those actors. What they give rise to has its own reality, in the sense of having effects. The forms of knowledge and related practices that we create in particular contexts have the ability to shape and influence those contexts and the actors within them (Maton, 2014, pp. 1–22). This is important to mention here because LCT is deeply concerned with questions of knowledge *and* knowers.

Much educational research in the past four or five decades has focused on a great deal on knowers – students especially – and how teaching can become more student-centred and responsive to students’ learning needs, goals and so on (Haggis, 2003; 2009). What LCT has sought to reclaim is knowledge – what differentiates and specializes different forms and kinds of knowledge and what makes these different forms and kinds powerful in specific contexts (e.g., university, professional practice, and so on). This is important for the research reflected in this book: what I want to help readers reflect on and improve in their own teaching and learning contexts requires a theorized understanding of the relationship between the knowledge students are learning and who and what they need to become and do in relation to that. In other words, how do students become physicists or lawyers or political analysts or designers, etc.?

The LCT framework comprises three active ‘dimensions’ or sets of concepts, each of which explores different set of organizing principles that underlie practices, beliefs and dispositions (Maton, 2014, p. 18).⁴ These dimensions – called Specialization, Semantics and Autonomy – enable researchers and practitioners to get at what lies beneath what is seen and experienced on the surface, for example, in a lecture, an assessment cycle, or in a curriculum. Analysis of these organizing principles can help reveal the ‘rules of the game’ or ‘ways of working, resources and forms of status’ within fields (Maton, 2014, p. 17). Each set of organizing principles is conceptualized through a species of *legitimation code* (specialization codes, semantic codes, autonomy codes).

The goal of the LCT framework as a whole is to offer us a way to see more effectively what we cannot with a common-sense or everyday set of understandings; it is a specialized theoretical apparatus concerned with exploring meaning-making and knowledge-building with different underpinning organizing principles, or orientations to meanings and knowledge. But we have different problems or concerns – different meanings – we want to understand, such as how to better teach abstracted concepts that do not have easy empirical references in the real world (see Blackie 2014, on teaching inorganic chemistry), or how to capture the ways in which musicians develop their knowledge, practice and aesthetic sense and share this with others (see Richardson, 2020, on jazz education). The problems we want to understand and solve may ask for different ‘tools’ or conceptual ways of working. So, we can use, for example, Semantics (Blackie, 2014) or Specialization (Richardson, 2020), a different dimension

(Vorster, 2020 using Autonomy), or a combination of two or more dimensions (Chapter 6, this volume).

The community of scholars and educators who enact LCT in their research and teaching are concerned with questions about *access*, *success*, and *social justice*. These concerns are at the heart of this book, and this, in addition to the practical and accessible nature of the LCT ‘toolkit’ of concepts and codes, is why I have chosen to use this approach. The kinds of questions driving the research reflected in the following chapters are: what knowledge counts as valuable or *legitimate* in different contexts (i.e. school, university, government, social movements, etc.)? How is that knowledge made legitimate, reproduced, and shared? Who gets access to what knowledge, where, and how? Further, why are some excluded from knowing while others are not? How do we make sense of the current ways of working with knowledge and knowers so that we can make changes where these are needed?

The two dimensions I shall use in this book are Specialization and Semantics. ‘Specialization’ focuses on what kinds of knowledge, and what kinds of knowers are created, valued and nurtured by educational practices (Maton, 2014; Maton & Chen, 2020). Chapters 2, 3 and 6 use concepts from this dimension to reveal the hidden principles underlying curriculum design and feedback-giving. ‘Semantics’ examines the context-dependence and complexity of practices and how education connects, relates and builds meanings in and across the curriculum (see Maton, 2014; 2020). Chapters 4, 5 and 6 use concepts from Semantics to examine teaching, assessment and feedback practices.

Why we need stronger, explanatory theory in education

White (2017) explains that theory has three characteristics: it is abstract, it is testable, and it is explanatory. In being all three of these things, theory enables us to create more powerful understandings of how the world works. Theory is powerful because it enables meanings to transcend single or local contexts and thus can be used or applied beyond the problems or challenges we are confronted with in the present. In teaching and learning, theorizing practice is linked to more sustainable, longer-term development and change, such that you can use the theory to improve not only the current module, task or teaching activity you are working on, but also future modules and further work with students and colleagues. To enable this dual empowerment, both immediate and longer-term, we need a theory that speaks to something deeper than only teaching or only learning. We need to dig down to what lies beneath the acts of teaching and learning, to ask ourselves what is the point of teaching; why and what and how do students need to learn?

The theory we then need to provide us with the ‘explanatory power’ (Maton, 2014) to create and enact better teaching and learning practice needs two dimensions. On the one hand, theory needs to be able to characterize *knowledge* as an object of research and practice as well as having subjective dimensions, as it is created in particular social and historical moments by human beings (see Bhaskar, 1998), thus making it variable over time. On the other hand, we need to be able to characterize the

processes and practices we use to create, make sense of, and use knowledge to become knowing subjects, or *knowers*. The theory or theories we need have to provide us with a language for naming and describing what counts as knowledge, who the valued knowers are, and why, in a particular context, at a particular time, we choose to value and develop *this* knowledge and *these* knowers over possible others. We also need the theory we use to show us how to design teaching and learning that genuinely provides all students with the means to acquire the valued knowledge and to become legitimate knowers, because this is the basis for success in higher education, and widening student success needs to be our collective goal.

One of the principal reasons LCT has been chosen as the ‘toolbox’ for the chapters that follow is that it enables this kind of theorizing and so moves us towards improved praxis. It can enable us to think from, for example, binary positions or states that tend to characterize teaching and learning development work (‘typologies’) towards a continuum or range of practices (‘topologies’). In essence, this means that LCT can take our thinking out of the many binary ‘boxes’ apparent in educational thinking, such as deep and surface approaches to teaching (Biggs, 2012; Marton & Säljö, 1976), high road and low road transfer (Salomon & Perkins, 1989), and active and passive learning, as implied in studies on inquiry-based learning, authentic learning and pedagogic constructivism (see Healey, 2005; Kotzee, 2010). Moreover, it can then enable us to consider and create different, creative options for practice and research. This is valuable in theorizing higher education practices with a view to creating better, more accessible teaching and learning practices, because so much of educational thinking and working is premised on binary thinking or putting our practices (and students) into boxes.

For example, surface approaches to processing information and knowledge (Marton and Säljö’s original work in the 1970s) has been transformed into deep or surface approaches to learning underpinned by educational psychology and individualized understandings of student learning (Haggis, 2003). Students who are deemed ‘surface learners’ are framed negatively as doing the wrong kinds of learning; the right kinds of learning being ‘deep learning’ and by extension, being deep learners. Apart from misrepresenting the original work in this area, in putting this onus on students to do the right kinds of learning rather than on higher education to provide appropriate forms of teaching, how does this way of thinking help us work out what is ‘deep’ and ‘surface’ about the learning in the first place? When you think, in your own context, of how you want students to process the knowledge, practices, ways of acting and so on in your subject or its larger discipline, what is ‘deep’ and what is ‘surface’ in what students are doing? I suspect what you might arrive at in considering a response is a way of characterizing how students show their level of specialism in the discipline, or their growing ability to act, write, read, think and speak like someone who belongs to the same community of disciplinary practice and knowledge you belong to. There may be both more and less ‘deep’ ways of developing this disciplinary identity, and students and lecturers will use different teaching and learning strategies in response to particular learning goals or outcomes at particular points in time.

To work out what these particular goals, outcomes and strategies could be, we need to see learning and becoming more as a continuum of meanings and positions. We also need to see what makes different forms of learning, teaching, knowledge and knowing special or particular, as well as what commonalities and differences they may share. Further, what counts as knowledge and knowing in different contexts also has to mean something in relation to both the specific, present context and beyond it so that the current learning and knowledge can be *cumulatively* added to and developed into the future. Context here can mean a range of different things, such as a module, a specific disciplinary subject, or a physical context, for example, a lab or a workplace-learning site. Meanings that are ‘powerful’ (Chapter 2) are those that can be used within specific knowledge and knower building contexts and have application or meaning beyond those contexts, so that they can be taken forward as part of a lifelong or ongoing learning process.

How the book works

The structure of the book is organized around teaching and learning as a ‘cycle’ broken into different interconnected steps or processes: designing a curriculum and writing or developing course materials (Chapters 2 and 3); classroom-based teaching and interaction with students (Chapter 4); designing and discussing assessment tasks (Chapter 5), and working with feedback and evaluation (Chapter 6). Within different national and local contexts, there are particular challenges that shape the conditions academic lecturers and academic developers work within, and the issues they need to manage and make sense of as they work on different parts of the teaching and learning cycle. However, although context is key and what counts as a priority challenge will differ between local, regional and national higher education institutions and sectors, the challenges this book discusses, theorizes and aims to offer responses to are common to university lecturers and academic developers across these differences.

This book is not a textbook. It has not been written to provide the definitive word on successful teaching practice or to claim that there is one theory or one approach to improving your own teaching and learning practice within your context. As the opening sections note, context is important and the different trends that are currently influential in higher education will shape your context in different ways. This means that you need to be aware of your own national, institutional and disciplinary concerns, structures, cultures and resources, and work out as you read the chapters what the more pressing issues are in teaching and learning that you need to reflect on, theorize and change. These may be closely mirrored in the discussions in the chapters because the challenges discussed in the book are relatively well known to many university lecturers across different higher education sectors. Yet, even if they are not, the book has been written as a sourcebook, so that you can use it to think about what matters most to you and your students at the point in time at which you read (and re-read) it. You may come back to some of these chapters later on in your academic career and find new points to focus on and think about.

This book can be navigated in one of two ways: you can read it chronologically, chapter by chapter. If you do this you may notice some repetition of the LCT tools and of aspects of the teaching and learning challenges the book tackles. This is because the book has been written in such a way that you can also dip in and out of it, reading the chapters out of order or only reading those which are of most interest to you right now. Tools from the LCT framework are introduced in the chapters in which they are used in analysis, rather than in a separate theory chapter. However, while the theory is made sense of through a specific analysis, it is also introduced in more context-independent terms. This will hopefully make it possible for you to work out how to apply and use the theory in your context if your problem is different from the one represented in the selected data. Each chapter has its own self-contained argument, although, as I indicated earlier, the central thread of socially just, systemic understandings of enabling success runs through the book, connecting the chapter arguments together.

I hope that, however you choose to navigate the book, you will *use* it, because it is written to be a source both of inspiration for improving teaching and learning practice, and as an account of theoretically powerful approaches to unpacking, making new sense of and changing practice.

Overview of the chapters in the book

Chapter 2 opens the exploration of teaching and learning practices by starting with the relationship within the disciplines between knowledge and knowers. This chapter draws out the discourse of ‘employability’ that many universities around the world are grappling with. One of the effects of this discourse has been the development of sets of generic skills and attributes that all lecturers are asked to incorporate into their curricula, teaching activities and assessment tasks and assignments. Yet, many struggle to work out how to do this because to make meaning of these generic aspects of becoming employable (as understood by this discourse), there needs to be a valid contextualization within the specialized body of knowledge and ways of knowing, being and doing within the disciplines.

If the knowledge we come to university to acquire is powerful because it is specialized, then the ways in which we come to know it, use it and make it part of our identities needs to be specialized too. Using tools for theorizing different expressions of what makes knowledge and knowers special and also valid, this chapter shows you how to uncover, theorize and express your own discipline’s *basis* for legitimate or valid achievement and success. Being able to see, name and explain this to yourself can help you to reflect on the learning outcomes you have created for your modules, the alignment of these with both the discipline’s underlying organizing principles, as well as with the teaching and assessment activities designed for students.

Building on Chapter 2’s exploration of disciplinary organizing principles expressed as specialization codes, Chapter 3 poses a different question about knowledge and knowers. While it is important to understand the nature of knowledge and what it is to be a knower to enable students to achieve success. Teaching and learning cannot stop here. It is also vital to consider the extent to which our

dominant and valued practices are, in fact, reinforcing exclusive, limited participation in higher education and in society through valuing and reproducing knowledges and knowers that maintain inequitable statuses quo, rather than challenging these. Using a different ‘tool’, this chapter looks at how curricula are designed through the choices lecturers and curriculum designers make about what the valid basis for success is, and what it is not. The analysis here shows you how the deeper logics and organizing principles of your own curriculum can be uncovered, theorized and reimaged to create genuine spaces for socially just teaching and learning.

Moving a step onward in the teaching and learning cycle, Chapter 4 tackles the tricky topic of how to enable ‘joined-up’ or *cumulative* learning and knowledge-making. In essence, this chapter begins with a problem many lecturers grapple with: the tendency many students have to break their knowledge and related knowing, doing and being practices into pieces, often aligned with learning for tests or completing assignments. The most common result of this *segmentation* of the whole of meaning captured within a curriculum is that students’ ultimate transformation into different kinds of skilled, knowledgeable, professional graduates may be undermined. This is echoed in comments across industry in different countries about graduates lacking, particularly, forms of professionalism or valued ways of acting in and adapting to working environments.

Rather than addressing these complaints with generic graduate attributes, Chapter 4 argues for teaching to create clearer, meaningful connections between parts of the curriculum (units or topics), between different modules within a degree programme, and between academic and related professional or vocational contexts students will eventually move into. This chapter uses tools from Semantics to help you theorize the ways in which knowledge and learning are both contextualized and abstracted from context. It demonstrates how successful learning is about meaning-making that connects knowledge with ways of knowing, doing and being to create a whole that is greater than the sum of the parts.

Chapter 5 continues working with Semantics tools to look closely at assessment practices. Specifically, the chapter looks critically at the false divide created in many universities between ‘content’ and ‘skills’, which can lead to generic, decontextualized approaches to teaching students critical, disciplinary ways of presenting, writing about and creating knowledge. This chapter uses examples of assessment tasks from the natural and social sciences to unpack the ways in which students’ thinking and writing work in response to assignments is specialized by the knowledge they are working with, as well as by the ways of knowing, doing and being that specialize knowers in the discipline. The argument here is that, whether they are able to do so on their own or are able to work with academic developers, disciplinary lecturers need to make the ways of thinking and writing about knowledge an overt part of their curriculum and teaching practice. This chapter shows you how to develop a more complex and nuanced understanding of success for your students as related to the successful acquisition and enactment of their disciplinary literacy practices.

The final substantive chapter, Chapter 6, closes the teaching and learning cycle by looking at feedback to students on assessment tasks and assignments, and

evaluation of teaching by students. This chapter argues that, if framed by narrower or unconscious notions of ‘ideal’ ways of expressing a disciplinary identity or of being a successful student, feedback can serve to reinforce narrower, individualistic notions of success. In doing so, feedback practices can actually further exclude students who do not see or realize the ‘rules of the game’ from understanding how to improve their learning and become successful knowers.

Evaluation, as a form of feedback to lecturers from their students, can also reinforce both generic notions of successful teaching and an individualized notion of teaching success. In the first instance, evaluation can reinforce generic notions of successful teaching through asking questions that provide little information about learning and teaching in specific subjects and disciplines. These kinds of questions may provide basic data to show evidence of quality as compliance, but they are unable to show how the teaching has actually opened wider spaces for student participation, engagement and successful learning. In the second instance, generic evaluation data limits lecturers’ ability to critically reflect on and change their teaching practice. In providing a thin account of general student satisfaction (or unhappiness), it isolates the lecturer from a consideration of the structures supporting (or discouraging) them in their daily student-facing work.

Using tools introduced in the previous four chapters, this chapter will consider feedback to students both in relation to the specialized learning outcomes students must successfully achieve and in relation to further learning. In terms of evaluation, it looks at how you could ask for feedback on your teaching that enable you to reflect both on the present module and teaching context and on your own ongoing development as a specialized knower and teacher in your discipline or field.

Chapter 7 is written in the style of an afterword of sorts – a closing ‘chapterette’. It pulls together the key threads that run through the book, introduced here in Chapter 1, to draw the book to a close. The larger thread is the ways in which current social, political and economic ideologies and trends may threaten more expansive, socially just and socially transformative enactments of higher education and teaching and learning practice. Sub-threads focus on: the need to see and theorize the individuals in higher education as part of complex social and socializing worlds within and outside of the university; the need for knowledge and knowers to be theorized in specialized rather than generic ways; and the value of theorizing learning and knowing in both context-dependent and context-independent ways that can be both more and less complex depending on the purpose of the teaching and learning and the disciplinary context itself.

A final thread that the book pulls through the chapters that follow is the need for us, collectively, to have hope for change and the courage to make change possible. We can begin to unpack our practices with a view towards transforming them, using a set of theoretical tools that can provide us with a sophisticated yet also accessible, practical language with which to talk about knowledge and related ways of knowing, being and doing. This work, underpinned by a notion of social justice as requiring systemic, institutional change, is not easy or quick. But it is vital work to do in enabling higher education to realize its important civic, educational, and social purposes.

A brief glossary of sorts

We, us and our

I am an academic developer and a lecturer. My teaching and learning practices are constantly in revision as I find ways to do better and to work in more socially responsive, conscious, theoretically informed ways. At times in the following chapters, I may refer to ‘we’ or ‘us’ or ‘our’, and in doing so I am simply signalling that I do not stand apart from my readers, but consider the work I am proposing in each chapter my own work too.

Disciplines and subjects

I refer in the chapters mainly to disciplines as the organizing structures we reference in the teaching and learning cycle. This is because the discipline is the larger structure that socializes knowers and creates boundaries around what does and does not ‘count’ as valid knowledge. Subjects are the ways in which we unpack and access the discipline: think of the subjects of criminal law, civil law, constitutional law and tort (or delict) law all being part of the discipline of Law. While I acknowledge that there is complexity in how we define a ‘discipline’ at university or college level, I think it is safe to argue that there is a shared sense of this term and the term ‘subject’ in relation to it in spite of these additional meanings.

At certain points, I also use ‘subject’ to refer to people – we are subjects in the sense of being part of higher education as a system and subject to its rules, structures, practices and so on. Here, terms such as ‘subject position’ and ‘ideal subject’ are used to denote the identities we may take on, or resist, as we engage with and encounter different knowledges and different knowing others (peers, students, managers, etc.) within our university contexts.

Courses and modules

My understanding, based on my experience of working in several different universities in my own country and other countries is that the term ‘course’ relates most commonly to professional or academic development courses, such as a Postgraduate Diploma in Higher Education or a short course on assessment design or teaching with technology. The term ‘module’ typically refers to the building blocks of a curriculum; for example, in a first year History curriculum students may have to register for four modules, two in each semester. While the terminology may differ in your context, I am using these understandings of ‘course’ and ‘module’ in this book.

Units and topics

Within modules, the curriculum is often divided up into smaller pieces, usually dictated to some extent by the university calendar and how many weeks and lecture/

tutorial periods each lecturer has to use for the teaching and learning programme. These are variously called units or topics, such as week 1 in a module on South African History since 1900 might deal with the topic of the country becoming a union in 1910 and the implications of this for the black and white inhabitants of the country at the time. The next topic in week 2 may move to consider the progress from the union to the development of the apartheid ideology and so on, moving topic by topic or unit by unit towards present day.

Tasks and assignments

This book understands tasks more generally than assignments, as anything students are asked to do as part of the learning process. This can include informal, in-class tasks, such as talking to two peers about a specific question or issue and then reporting back or a short piece of written or performed work (such as a short oral or presentation). An assignment is generally understood as a more formally designed and assessed piece of work, usually structured into the formal assessment plan for the module and related to students' eventual certification.

Other key concepts and ideas, specifically *knowledge* and *ways of knowing, doing and being* will be defined and discussed in the chapters as they are used. The term *ways of knowing, doing and being* has also been defined in this chapter (see Notes).

Notes

- 1 In South Africa, for example, this term usually refers to senior undergraduate or postgraduate students who assist lecturers by facilitating small group tutorials, or 'tuts' to complement or supplement lectures. In North America, this role might be called a Teaching Assistant, and in the UK it may refer to a postgraduate student or a lecturer, both of whom may take on this role.
- 2 This term will be used throughout the book to signal that all disciplines have knowledge that they consider core to the history, development and growth of the discipline. But how that knowledge comes to be known, debated, created and so on is also marked by particular practices and skills, by particular ways of thinking, speaking and acting, and is shared using particular textual, oral and visual formats. These are what this book refers to as *ways of knowing, doing and being*.
- 3 The LCT website (<http://www.legitimationcodetheory.com>) has a comprehensive set of papers, dissertations and research that use LCT to explore various aspects of teaching, learning, assessment, curriculum across the disciplines, from the natural sciences to the social science and Humanities.
- 4 A fourth dimension, Temporality, is under development and testing.

References

- Allen, K., Quinn, J., Hollingworth, S., & Rose, A. (2013). Becoming employable students and 'ideal' creative workers: Exclusion and inequality in higher education work placements. *British Journal of Sociology of Education*, 34(3), 431–432.
- Al-Sharif, M. B., & Pasque, P. A. (2016). Addressing Islamophobia on college campuses. *Higher Education Today. A blog by the American Council on Education*. 4 May, 2016. <https://www.higheredtoday.org/2016/05/04/addressing-islamophobia-on-college-campuses/>.

- Archer, L. (2007). Diversity, equality and higher education: A critical reflection on the ab/uses of equity discourse within widening participation. *Teaching in Higher Education*, 12(5–6), 635–653.
- Bernstein, B. (2000). *Pedagogy, symbolic control and identity: Theory, research, critique* (revised ed.). London: Rowman & Littlefield.
- Bhaskar, R. (1998). Philosophy and scientific realism. In M.S. Archer (Ed.), *Critical realism: Essential readings* (pp. 16–47). London: Routledge.
- Biggs, J. (2012). What the student does: Teaching for enhanced learning. *Higher Education Research & Development*, 31(1), 39–55.
- Blackie, M. A. (2014). Creating semantic waves: Using Legitimation Code Theory as a tool to aid the teaching of chemistry. *Chemistry Education Research & Practice*, 15(4), 462–469.
- Boquet, E. H. (1999). ‘Our little secret’: A history of writing centers, pre-to post-open admissions. *College Composition and Communication*, 50(3), 463–482.
- Bottrell, D., & Manathunga, C. (Eds.). (2018). *Resisting neoliberalism in higher education. Volume I: Seeing through the cracks*. The Netherlands: Springer.
- Boughey, C., & McKenna, S. (2016). Academic literacy and the decontextualised learner. *Critical Studies in Teaching and Learning*, 4(2), 1–9.
- Burke, P. J. (2013). The right to higher education: Neoliberalism, gender and professional mis/recognitions. *International Studies in Sociology of Education*, 23(2), 107–126.
- Burke, P. J. (2015). Re/imagining higher education pedagogies: Gender, emotion and difference. *Teaching in Higher Education*, 20(4), 388–401.
- Case, J. M. (2013). *Researching student learning in higher education: A social realist approach*. London: Routledge.
- Coughlan, F. (2006). Access for success. *South African Journal of Higher Education*, 20(2), 209–218.
- Fataar, A. (2019). Towards a pathway to pursue knowledge in the South African higher education laboratory. Plenary panel discussion at the 3rd Legitimation Code Theory Conference, Wits University, 1–5 July 2019. https://www.youtube.com/watch?v=SK9eQ3Lk_9M&t=1091s.
- Fraser, N. (1997). From redistribution to recognition? Dilemmas of justice in a ‘postsocialist’ age. In *Justice interruptus: Critical reflections on the ‘postsocialist’ condition* (pp.11–39). London and New York: Routledge.
- Fraser, N. (2008). *Scales of justice: Reimagining political space in a globalizing world*. New York: Columbia University Press.
- Giroux, H. A. (2002). Neoliberalism, corporate culture, and the promise of higher education: The university as a democratic public sphere. *Harvard Educational Review*, 72(4), 425–463.
- Green, D. (Ed.). (1994). *What is quality in higher education?* Milton-Keynes: Society for Research into Higher Education and Open University Press.
- Haggis, T. (2003). Constructing images of ourselves? A critical investigation into ‘approaches to learning’ research in higher education. *British Educational Research Journal*, 29(1), 89–104.
- Haggis, T. (2009). What have we been thinking of? A critical overview of 40 years of student learning research in higher education. *Studies in Higher Education*, 34(4), 377–390.
- Healey, M. (2005). Linking research and teaching: exploring disciplinary spaces and the role of inquiry-based learning. In R. Barnett (Ed.), *Reshaping the university: New relationships between research, scholarship and teaching* (pp. 67–78). Berkshire: McGraw Hill/Open University Press.
- Heleta, S. (2016). Decolonisation: Academics must change what they teach, and how. *The Conversation*, 20 November. <https://theconversation.com/decolonisation-academics-must-change-what-they-teach-and-how-68080>.
- Jacobs, C. (2019). Keynote address, Annual HELTASA Conference, 27–29 November 2019, Rhodes University, South Africa. <https://www.youtube.com/watch?v=BUXHGCXcOMc&t=2249s>.
- Kotzee, B. (2010). Seven posers in the constructivist classroom. *London Review of Education*, 8(2), 177–187.

- Lillis, T. M. (2001). *Student writing: Access, regulation, desire*. London: Routledge.
- Luckett, K. (2016). Curriculum contestation in a post-colonial context: A view from the South. *Teaching in Higher Education*, 21(4), 415–428.
- Manathunga, C. (2011). The field of educational development: Histories and critical questions. *Studies in Continuing Education*, 33(3), 347–362.
- Marton, F., & Säljö, R. (1976). On qualitative differences in learning: I – Outcome and process. *British Journal of Educational Psychology*, 46(1), 4–11.
- Maton, K. (2007). Knowledge-knower structures in intellectual and educational fields. In F. Christie & J. R. Martin (Eds.), *Language, knowledge and pedagogy: Functional linguistic and sociological perspectives* (pp. 87–108). London: Continuum.
- Maton, K. (2014). *Knowledge and knowers: Towards a realist sociology of education*. London: Routledge.
- Maton, K. (2016). Legitimation Code Theory: Building knowledge about knowledge-building. In K. Maton, S. Hood, & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 1–24). London: Routledge.
- Maton, K. (2020). Semantic waves: Context, complexity and academic discourse. In J. R. Martin, K. Maton & Y. J. Doran (Eds.), *Assessing academic discourse: Systemic functional linguistics and Legitimation Code Theory* (pp. 59–85). London: Routledge.
- Maton, K., & Chen, R. T-H. (2020). Specialization codes: Knowledge, knowers and student success. In J. R. Martin, K. Maton & Y. J. Doran (Eds.), *Assessing Academic Discourse: Systemic functional linguistics and Legitimation Code Theory* (pp. 35–58). London: Routledge.
- Mavelli, L. (2014). Widening participation, the instrumentalization of knowledge and the reproduction of inequality. *Teaching in Higher Education*, 19(8), 860–869.
- Mohamedbhai, G. (2014). Massification in higher education institutions in Africa: Causes, consequences and responses. *International Journal of African Higher Education*, 1(1), 59–82.
- Morrow, W. (2015). *Bounds of democracy: Epistemological access in higher education*. Cape Town: HSRC Press.
- Quinn, L. (Ed.). (2012). *Re-imagining academic staff development: Spaces for disruption*. Stellenbosch: SUN Press.
- Quinn, L., & Vorster, J-A. (2019). Why focus on ‘curriculum’? Why now? The role of academic development. In L. Quinn (Ed.). *Re-imagining curriculum: Spaces for disruption* (pp. 1–22). Stellenbosch: SUNPress.
- Richardson, S. A. (2020). *Teaching jazz: A study of beliefs and pedagogy using Legitimation Code Theory*. (Doctoral dissertation, University of Sydney, Sydney, Australia). Retrieved from <https://ses.library.usyd.edu.au/handle/2123/22066>.
- Salomon, G., & Perkins, D. N. (1989). Rocky roads to transfer: Rethinking mechanisms of a neglected phenomenon. *Educational Psychologist*, 24(2), 113–142.
- Smit, R. (2012). Towards a clearer understanding of student disadvantage in higher education: Problematising deficit thinking. *Higher Education Research & Development*, 31(3), 369–380.
- Trow, M. (1999). From mass higher education to universal access: The American advantage. *Minerva*, 37(4), 303–328. <https://www.jstor.org/stable/pdf/41827257.pdf>.
- Vorster, J-A. (2020). Academic development: Autonomy pathways towards gaining legitimacy. In C. Winberg, S. McKenna & K. Wilmot (Eds.), *Building knowledge in higher education: Enhancing teaching and learning with Legitimation Code Theory* (pp. 272–288). London: Routledge.
- White, P. (2017). *Developing research questions*. 2nd edition. London: Palgrave Macmillan.

2

CREATING A RESPONSIVE CURRICULUM

Specializing knowledge and knowers for success

Introduction

Think for a moment about an experience you have had in recent years of curriculum design or development.¹ This may have been developing a curriculum on your own or with colleagues or helping someone else with designing or revising their curriculum. You may have also attended conference presentations or workshops on renewing, designing or updating curricula, especially in light of current concerns with graduate employability and the need for the curriculum to better respond to the needs of the workplace. This idea of a ‘responsive’ curriculum is fairly common in the field of curriculum studies, especially in relation to discussions about the role of curriculum in connecting with and challenging wider social, cultural and economic issues in any given context. But the term ‘responsive’ is fairly general. As academic or educational developers and academic lecturers, we work in particular contexts with particular quirks, needs and demands. Both the kinds of universities we work in and the regional and national needs that push and pull the curriculum in different possible directions will influence what we are ‘responsive’ to. These contextual particularities will further inform how we are able to respond to calls for change or renewal.

However, in this current moment in higher education globally, noting concerns from government and industry about the role of higher education in training more employable and work-ready graduates, there is another dimension of creating responsive curricula that we need to carefully and critically consider. This is the context of the disciplines themselves and the learning needs of our students relative to the disciplinary communities of practice they are joining. Governments and industry globally want universities to send ‘skilled’ graduates into the workplace, ready to make their contribution to economic development and growth (Suleman, 2018). With larger numbers of students than previously now going to university in

many countries as a result of shifts towards ‘mass higher education’ (Trow, 1999, p. 303), there are also more graduates entering the workplace needing to find gainful employment for both personal and wider social and economic development. The university curriculum, across the disciplines, needs to carefully respond to these needs. This is important not just for the disciplines that directly link into the workplace, such as professional, vocational and practical disciplines, but also for those who may be considered more theoretical or abstract, such as disciplines in the Humanities.

The university curriculum is asked to fulfil a large number of demands. It must induct students into the discipline or field they are studying and critically engage with the concerns, arguments, debates and knowledge of the discipline (Quinn & Vorster, 2019); it must introduce students to necessary ways of doing (skills and practices) as well as ways of being (behaviours, values, ethics) and enable them to acquire and master these over time (Luckett, 2001); it must respond to the world within and beyond the university in relevant and appropriate ways (Shay, 2016); it must be contextually relevant and connected to knowledge inside and outside of the university and incorporate different forms of knowledge and knowing (Luckett, Morreira & Bhajinath, 2019). All of these demands, in many contexts, introduce possible tensions that lecturers, curriculum designers and academic development specialists need to manage. The tensions this chapter will focus on may emerge between particular disciplinary knowledges and related ways of knowing, doing and being that specialize *knowledge* and *knowers* and generic employability skills and attributes that universities believe will enhance graduate work-readiness.

The core of this tension involves a crucial question of what kind of ‘good’ higher education is or what a university education is for. Is higher education a private good in which students make an investment and have a right to expect a certain return on that, specifically employment, income and the status that comes with that? Is higher education a public good, with an important role to play in educating civic-minded graduates aware of broader social, political, economic and environmental issues and their responsibility to be mindful of these in their professional and personal lives (Singh, 2014)? Is higher education actually both a private and public good, straddling students’ concerns for their own futures with a public future in which we all have things to gain and lose as a society? I am going to proceed with a position that the university is both and therefore the curriculum needs to respond to both more particular and more general concerns and demands, from students, the disciplines and their communities, institutions themselves and the social, economic, environmental and political contexts in which they exist (see Moll, 2004; Singh, 2014).

But in being both, universities still have a specific mandate: specialized education and training. Their role is to provide access to particular, differentiated forms of ‘powerful knowledge’ (Young, 2008, p. 14) that can transform students from people who hold knowledge into graduates who can harness existing knowledge to create new knowledge through the use of specialized ways of knowing, doing and being.² I am going to pause here to consider more closely the term ‘powerful

knowledge', because it is important as part of understanding what higher education offers to students that makes it so valued in society and so desired by so many students and their families. Young (2008) and others such as Wheelahan (2010), distinguish between 'powerful knowledge' and 'knowledge of the powerful'. In essence, knowledge of the powerful is the knowledge that is currently being contested in protests all over the world, both related to education specifically and in society more broadly (e.g., #MeToo, #RhodesMustFall and #BlackLivesMatter). This is knowledge that is given power because it is related to those in the dominant group in that society. All other knowledges are subordinated and made less visible and valuable as explanations of the ways in which the world works. Knowledge of the powerful is exclusive and exclusionary.

Powerful knowledge, on the other hand, has the potential to be open and accessible to everyone, not just those with membership of a dominant group. This knowledge offers us languages with which to understand, unpack and relate our experiences of the ways in which the world works, the ways in which people are included and excluded, made visible and marginalized, and so on. In Wheelahan's terms (2010, p. 9), 'powerful knowledge is powerful because of the access it provides to the natural and social world and to society's conversation about what it should be like'. Curriculum needs to provide access to powerful knowledge and work to open up spaces for consideration of what this knowledge is and how it can help us engage in 'political, moral and other kinds of debates' about our shared future (Young, 2008, p. 14). This is not generic knowledge; it is carefully specialized and also specializes those who know it and use it in profound ways.

Holmes (2001) argues that part of the problem with the discourse of employability 'skills' is the notion that these skills and the knowledge attached are generic as well as unproblematically transferable and applicable across the curriculum and between the university and the workplace. He argues that what students need is not a set of generic skills and attributes that may or may not articulate between university and workplace, but rather mastery of sets of *specialized and specializing practices* that enable them to develop what he terms a 'graduate identity' that is a more nimble, adaptable way of knowing, doing and being.

The places in which we engage with knowledge at university and acquire different, specialized ways of knowing, being and doing are the disciplines. Each discipline has its own community of practice, and even though these are arguably not homogenous, uncontested spaces, they do have certain agreed upon *rules of the game* that enable members to create and communicate forms of knowledge within and between local, national and international contexts. What curriculum, teaching and assessment needs to enable is meaningful access to these *rules of the game* and the means with which students can play their discipline's game successfully.

However, for lecturers to do this work effectively, they need to be able to characterize what their game actually is, how it works, and how it can be played in ways that are accessible, open and visible to newcomers (i.e., students). This means a couple of things. First, every discipline has its own body of knowledge and its accepted ways of working with the knowledge, practically, intellectually and

personally. These are what I am calling ‘ways of knowing, doing and being’ (see also Gee, 2015 on Discourses) throughout this book. To be able to work effectively within and also across or between disciplines, we need to not just know what counts as the knowledge that is core or important in our discipline, but also be able to write about it, think about it, read it, speak about it, and use it to inform how we act, what we believe, and so on. We will come back to this idea a little later on in the chapter. The second issue here is that for those who already know, usually lecturers and professors designing the curriculum and doing the teaching and assessment, the rules of the game are no longer strange or difficult to make sense of (see also Bharuthram & McKenna, 2006; Jacobs, 2016). If you can already play the game and play it well, it might be hard to see why someone who has not played it before does not get what the game is about and how it works. When you know how to read, write, reason, debate and so on in your discipline, it is not always easy to go back and put yourself in your students’ shoes to work out what seems strange and therefore needs to be carefully explained and made more visible and clear.

This chapter is going to tackle these two issues against the backdrop of research and practice that critiques the notion that curricula must teach generic employability skills and attributes to enhance students’ return on their investment in their education. It is going to do this by offering a way of unpacking and characterizing what makes disciplines special using Specialization from Legitimation Code Theory (LCT) (see Maton, 2014; Maton & Chen, 2020). This theoretical ‘tool’ is the first one offered in this book; it is used in this chapter to show how disciplines have both knowledge and knowers, and how these two dimensions are specialized in particular ways and in relation to one another. This is important in creating a curriculum that can respond to students’ learning needs, to the discipline, and to the world of work. This chapter argues that what workplaces and professions actually need are graduates with ‘a set of social practices and a set of identities appropriate to the social situation’ (Holmes, 2001, p. 111). In other words, graduates who have the ability to engage in particular rather than generic ways within *specialized* professional, practical, vocational and social environments.

The chapter begins by focusing on how the employability discourse tends to push curriculum and teaching too far towards generic, ‘best practice’ approaches, neglecting or under-developing the specialized knowledge and related ways of knowing, doing and being that students need to acquire, develop and master over the course of their degree or diploma programme. To create truly ‘responsive’ curricula we need to consider from a theorized perspective what knowledge matters in the discipline we are working within, why and how it matters, and who students need to become as they work with this knowledge over time. This may then move us from generic ‘best practice’ towards what we could call ‘better practice’ (Jacobs, 2019), imbued with an understanding that we need to constantly reflect, reconsider, revise and learn with and from students and peers as we move through our own scholarly and academic careers. Following on from this discussion, I will introduce the dimension of Specialization from LCT, complemented with aspects of sociolinguistics and

academic literacies. Then, the chapter will analyze data, drawing out insights into curriculum design set against the backdrop of responsiveness to context and what forms that could take for the exemplar disciplines. This chapter, like every chapter that follows, will close with questions and discussion points for further work in readers' own contexts.

Knowledge, employability and specialization in higher education

Given that we are working with the concept of curriculum knowledge in this and the next chapter, knowledge does not mean curriculum 'content' (e.g., units or topics with reading lists and course guides), nor does it mean skills. Rather, what we are going to grapple with here is an understanding of knowledge as encompassing the epistemological and axiological values that underpin the discipline (Martin et al., 2010; Maton, 2014, pp. 148–170). Epistemic values here relate to a shared understanding in a discipline of what counts as truth and how we come to know that, how we challenge received or established knowledge, and how we propose new ways of understanding and knowing in this discipline. Axiological values might relate more to behaviour, values and ethics – how we show that we are knowers or what characterizes being and behaving as a 'knower'.

One example: in an Education curriculum (a discipline I have studied), you may find a topic on the education context (policies, structures, etc.) But dividing a curriculum into topics is just a way of organizing it. There are two possible kinds of knowledge here: empirical or evidence-based knowledge that illustrates or explains how that education system has been structured and why, and how different schools, teachers, parents and students may experience this. There is also theoretical knowledge underpinning this that may explain why particular kinds of school structures and policy choices have been made and not others. Why 'outcomes-based education' and not something else, for example? The 'topic' on understanding the local education system and context in this example may then draw in different kinds of knowledge then – social, policy, contextual, research – and ask students to make connections, reflect on their own education, and consider how they will become part of this context as teachers or school leaders in future. Working through this curriculum 'topic' would then require students to work with epistemic values (what theory is being used here, why, how does it shape what we are learning about?) and axiological values (how would I need to relate to my own learners and their parents, how might these policies shape the experience of learning and teaching in different kinds of schools?) Learning to think, make connections, reflect and critique what they learn through connecting different kinds of theoretical, empirical and other kinds of knowledge is part of learning how the discipline organizes, uses and creates knowledge. These often-hidden processes of creation, organization and valuing are a crucial part of the rules of the game that move students closer to becoming specialized knowers.

Within and beyond the university today, a range of voices is increasingly calling for university graduates to be ready to dive into the world of work, equipped with appropriate skills, attributes and, of course, knowledge. Although this demand feels

quite pressing today, research into curriculum responsiveness as preparing students better for employment in the ‘knowledge economy’ is at least two decades old in South Africa (see Lockett, 2001; Warren, 2002 for examples), and has been around even longer in other parts of the Global North, such as the United Kingdom and Europe (see Holmes, 2001). Student numbers in universities around the world have increased over the last three to four decades (Mohamedbhai, 2014; Trow, 1999). The move towards mass higher education in many contexts signifies not just more students in seats, but also changes in the demographic of those students, in university funding systems, in teaching approaches and resources, and also in what happens when larger numbers of graduates enter the job market. More students in almost every higher education context that is experiencing aspects of massification means a more socio-culturally, socio-economically and linguistically diverse student body. This growing diversity has significant implications for how we conceptualize and enact equitable access to the knowledge and the ways of knowing, being and doing that characterize success (Council on Higher Education, 2013).

In terms of creating contextually and socially responsive curricula, academic lecturers and curriculum designers need to question their assumptions about students’ learning needs, goals, prior learning, and preparedness for university study. In a rapidly changing world, pressed from every side with some form of crisis – political, environmental, social, economic – responsiveness means serious reconsideration about what knowledge matters, why it matters, and how it needs to be incorporated into a dynamic, living curriculum. Higher education has transformative power (Case, 2013). We are different people when we graduate than when we enrolled. Not just because we know more and can enact different kinds of practices, such as composing a legal brief or setting up a complex lab experiment, but because *we* have changed as people too. We are hopefully more critical, sceptical about claims to knowledge and truth, we have likely had our positions and beliefs challenged and have learned to either defend them or have chosen to change them. We are able to reflect on who we are in relation to others and the world around us (Case et al., 2018). The curriculum is the key vehicle through which academic lecturers can empower and enable students to engage with different kinds of knowledge and knowing, doing and being practices, and through which we communicate how this knowledge can transform students into the kinds of dynamic, critical knowers we need them to be, regardless of their chosen future profession.

How we learn to become critical, curious, reflective, open to challenge and change, able to communicate and work across difference in the various forms that takes, is a significant part of learning and teaching in the disciplines. The ways in which we learn to think, read, write, debate, and so on are inextricably linked to the knowledge that counts as relevant or *legitimate* in the discipline. This tends to be represented by the core texts, thinkers, practices, values, behaviours, theories and so on that make the discipline what it is. These ways of knowing, doing and being are not generic, they are shaped by and shape the ‘social situation’ (Holmes, 2001, p. 111) that they are part of, in this chapter the academic/professional/

vocational/practical disciplines in the university. It follows that if knowledge is specialized and differentiated, the related ways of working with that knowledge and becoming a knower should be too. Generic skills and attributes are difficult to make sense of in specialized contexts, such as the disciplines, yet trends towards focusing on or embedding ‘employability skills’ in curricula give the impression that disciplinary knowledge and knowing practices can, firstly, be reduced to discrete, list-able skills, and secondly, transferred across the curriculum in relatively generic or homogenous ways (see Holmes, 2001).

This push towards generic or homogenizing approaches to embedding what are called ‘skills’ into the differentiated curricula acting as entry points for students into knowledge-oriented, value-laden social contexts, needs to be carefully critiqued for a number of important reasons. First, the discourse around employability skills tends to present terms such as ‘skills’, ‘abilities’, ‘competencies’, and ‘attributes’ as meaning more or less the same thing, and in much of the literature these terms are presented as self-evident and even common-sense (Murphy & Otter, 1999, in Holmes, 2001). This is obviously questionable, because what it is to be skilled or able as a doctor is not at all the same as being a skilled and able teacher, engineer or historian. A generic approach to teaching students how to learn and how to know is often behind modules or programmes within the university that teach communication, writing or academic learning skills completely outside of or disconnected from the disciplines in which students are meant to be working with specialized knowledge in specialized ways. ‘Communication’ is not the same across different workplaces. By the same token, what counts as an appropriate text, whether for students to read and extract knowledge from or write themselves, differs across disciplines and subjects according to the task at hand, the purpose of the writing itself, and the level at which the student is working. We need, then, to be careful of approaching communication of knowledge, verbal and written, as a generic ‘skill’ that students can or should learn outside of the discipline itself and separate from its related body of knowledge and ways of knowing, being and doing.

Second, it is important to be sceptical of the discourse around generic approaches to increasing employability through skills development because it is pervasive and powerful. It is implied in many documents in many universities globally, in vision and mission statements and in statements of ‘graduate attributes’ that the university expects the curriculum to inculcate and develop (see, for example, Table 2.1). Governments spend a great deal of money helping universities to enhance the employability of their graduates through various different kinds of educational and funding initiatives, and it can seem like the most appropriate response to national concerns about critical skills shortages and the need for more adaptably skilled workers. Current conversations around the curriculum within the age of the 4th industrial revolution pull in aspects of globalization and marketization of higher education (see Chapter 1), arguing for greater inter-disciplinarity and flexibility as regards how we teach, where we teach and what we teach students (see McCowan, 2017; Menon & Castrillon, 2019). The curriculum in the twenty-first century is called to be ‘responsive’ in new and somewhat unsettling

TABLE 2.1 Extracts from charters of graduate attributes for universities in South Africa, Scotland and Australia

<i>Australia</i>	<i>South Africa</i>	<i>Scotland</i>
<p>Deep discipline knowledge</p> <ul style="list-style-type: none"> ● informed and infused by cutting edge research, scaffolded throughout their program of studies ● acquired from personal interaction with research active educators, from year 1 ● accredited or validated against national or international standards (for relevant programs) <p>Critical thinking and problem solving</p> <ul style="list-style-type: none"> ● steeped in research methods and rigour ● based on empirical evidence and the scientific approach to knowledge development ● demonstrated through appropriate and relevant assessment <p>Teamwork and communication skills</p> <ul style="list-style-type: none"> ● honed through assessment and practice throughout the program of studies ● encouraged and valued in all aspects of learning 	<p>GRADUATE ATTRIBUTE 1 SCHOLARSHIP: A critical attitude towards knowledge; [evidence of] ... a scholarly attitude to knowledge and understanding within the context of a rapidly changing environment. ... the ability to actively engage in the generation of innovative and relevant knowledge and understanding through inquiry, critique and synthesis. ... ability to apply their knowledge to solve diverse problems and communicate their knowledge confidently and effectively.</p>	<p>University of Edinburgh graduates have:</p> <ul style="list-style-type: none"> ● curiosity for learning that makes a positive difference ● courage to expand and fulfil their potential ● passion to engage locally and globally <p>University of Edinburgh graduates are:</p> <ul style="list-style-type: none"> ● creative problem solvers and researchers ● critical and reflective thinkers ● effective and influential contributors ● skilled communicators <p>Shaped by our students' experiences, personalities and academic subjects, these graduate attributes evolve over time.</p>
<p>Teamwork and communication skills</p> <ul style="list-style-type: none"> ● honed through assessment and practice throughout the program of studies ● encouraged and valued in all aspects of learning 	<p>GRADUATE ATTRIBUTE 2 CRITICAL CITIZENSHIP AND THE SOCIAL GOOD: A relationship and interaction with local and global communities and the environment; [students] ... should be engaged, committed and accountable agents of social good. ... aspire to contribute to social justice and care, appreciative of the complexity of historical contexts and societal conditions through their roles as professionals and members of local and global communities.</p>	

Note: For the full documents, see: Australia – <https://www.adelaide.edu.au/learning/strategy/gradattributes/>; South Africa – <https://www.uwc.ac.za/TandL/Pages/Graduate-Attributes.aspx>; Scotland – https://www.ed.ac.uk/files/atoms/files/graduate_attributes.pdf.

ways on a number of key levels, from responding to the students in our classrooms and their needs all the way up to national economic and social concerns (see Moll, 2004).

In this context, especially when there is funding for it, the pull of the employability skills discourse can be seductive and hard to resist or argue against. Not to equip students with skills that will enable them to get jobs, especially in contexts where many working-class students are relying on universities to help them change their futures, seems socially unjust and even elitist (Holmes, 2001). But I am going to argue that emphasizing generic skills and attributes over the specialized and powerful knowledges and ways of knowing, doing and being in the disciplines that students need to acquire and use to become knowledgeable graduates is the truly unjust approach.

Now is the time, perhaps more than ever, to ask and answer crucial questions that critique powerful, pervasive and often hard-to-see notions of what a ‘responsive’ university curriculum and education should be. I argue, against the backdrop of an ongoing push towards generic, ‘best practice’ approaches to specialized teaching, learning, writing, reading, knowing, doing and being, that we need to look more closely at questions of *knowledge* and *knowers*. In other words: what are we teaching and how? Who are we teaching and who are we expecting our students to become? We need a way of engaging with the learning we value and desire within our disciplines, so that we can be quite clear on what students are learning, how they need to be learning, and why *this* learning is legitimated over other learning. I am going to suggest, joined by other researchers working within the sociology of education and educational linguistics (see Luckett, 2009; Martin, Maton & Doran, 2020; Maton, 2014; Maton, Hood & Shay, 2016), that when you have clarity on what counts for your discipline as valued and relevant knowledge and knowers, you can connect disciplinary needs, student learning needs and concerns about social and professional success far more meaningfully. You can also more ably and effectively challenge notions of employability, attributes and skills where they may be limiting or narrowing your agency as a lecturer or academic developer in creating nuanced, ‘better’ practices in curriculum design and teaching.

Starting points: what is the curriculum responsive to?

There are, as a starting point to practical action, two sides to the tension introduced earlier on what a curriculum – your curriculum – needs to respond to. The first is to consider the discipline in which you work in terms of its own internal logics. What is the point of this discipline? In other words, what knowledge does it value, what is the purpose of creating and sharing that knowledge, and what ways of knowing and sharing it (written, oral and/or visual) are valued? The second is to consider the external logic or purpose of your discipline. What are students meant to do with the knowledge you are teaching them to know and use, and what ways of acting, behaving and being are valued in the social and professional world? Here, consider the ways of *doing* and *being* your students are learning as part of the identities they are forming that make them legitimate or accepted members of your

discipline's community of practice; where might they use these in the worlds of work and society? Both sets of questions, about the *what* and the *who* of your curriculum, need answers and both answers are important to the ways in which you design, teach and assess your curriculum.

In response to the first set of questions, which are focused on knowledge, each discipline has an internal logic: there is a body of accepted knowledge that is considered foundational and important to the discipline. There are, for example, 'names', texts, cases, procedures and so on, that students need to learn, read and engage with, and perform to become members of the discipline. There are basic and more advanced writing, reading and thinking practices your students need to acquire and master. Additionally, in many disciplines, especially in the natural and applied sciences as well as in professional and vocational disciplines, there are practical tasks that need to be mastered, such as constructing an audit document, making a piece of jewellery or a technical pattern, intubating a patient with breathing difficulties. Around all of this knowledge – theoretical and conceptual as well as technical and practical – there is a set of values, ethics, ways of speaking, dressing, behaving, interacting, that you wish your students to acquire and demonstrate (see also Gee, 2015). This is often the most tacit part of the curriculum and it is focused on knowers.

This chapter argues that a powerful and valuable way of addressing both sides of this curriculum coin, both *knowledge* and *knowers*, is to unpack and qualify what counts as valid knowledge, as valid ways of knowing, being and doing, as valid texts and forms of writing, and so on. These will reference a deeper, often invisible, set of underlying principles, values and learning goals of your discipline, which profoundly influence *what* we choose to teach and *how* we choose to teach and assess your students. Building on this sense-making work, you can move towards better practice in connecting different parts of the curriculum together with the underlying basis for success in mind and communicate the *rules of the game* more clearly and openly to your students. But to do this, we need a way of getting at these underlying, hard-to-see principles and values, not only to see them ourselves but also to characterize them in accessible terms so that they can shape and inform successful student learning. We need a theorized approach to doing this work, because theory offers us powerful explanatory frameworks that can create a kind of 'holding structure' for our thinking and practice. This holding structure can bolster our work when trends, fads and funded ideas seem to pull us in several different directions, such as the pull towards downplaying specialist disciplinary knowledge and knowing to emphasize generic employability skills and attributes.

Before we move on to theorize the challenge in this chapter – creating a responsive, contextually relevant curriculum – I would like to pause and look at Table 2.1 again. How one comes to 'solve diverse problems' (South Africa), or make a 'positive difference' through being 'creative problem solvers' (Scotland), needs to be carefully unpacked and made sense of. What is a diverse problem? What counts as a positive difference? Consider coming at these questions from the perspective of a political scientist, a social worker, an engineer, a teacher. How do we move from a generic statement of skills, abilities and attributes that are regarded

as desirable for a graduate of the university in which we teach, towards the specialized bodies of knowledge and ways of knowing, doing and being valued in the disciplines within that university? Another way of putting this would be to ask: what, specifically, does my discipline value and how is this reflected in what I value as a specialist and lecturer? How does this shape what my students need to know, what they need to do with that knowledge, and who they need to be or become as a specialized knower in this discipline? Where do the knowledge and ways of knowing, doing and being of my discipline fit into the wider social, political, economic and environmental context my university is part of (national, regional and local)? And, considering this context carefully, do I need to decentre or openly critique knowledges currently regarded as dominant or authoritative in my discipline? What other forms of knowledge and ways of thinking and engaging with knowledge can be included, centred and brought into conversation with one another?

Theorizing knowledge and knowers in the curriculum

What we are asking, following the discussion above, is how students become members of their academic community or discipline and how we empower them through the curriculum to do this successfully. Here, I am going to turn briefly to sociolinguistics and academic literacies for assistance with theorizing this question before I move to introduce Specialization from LCT. Specifically, I am going to draw in this chapter on work by James Paul Gee (2015), a noted sociolinguist.

To mark themselves as specialized and also legitimate (accepted) participants in their discipline, students have to do more than mimic the rewarded ways of writing, speaking, reading, thinking and acting. Drawing on the comment earlier in this chapter about the transformative powers of higher education, students have to *become* someone new. They have to become a physicist, a historian, a financial analyst, a textile designer. Gee (2015) argues that this process of becoming is about developing a new and specialized identity. This identity is not skin-deep; it means our sense of self and our ability to be a part of the professional and social world also changes. This becoming work, in curriculum and teaching terms, is facilitated most evidently by students' learning of disciplinary literacy practices because it is through reading, thinking, debating, speaking, performing, and writing that we are able to demonstrate our knowledge and our ability to be part of the disciplinary community we want to be part of (physicists, historians, financial analysts, designers, etc.).

But being appropriately literate is not just about having command of the language of instruction so you can read and write and speak in the right kinds of ways, or about learning appropriate study skills. To be truly literate and specialized as a knower in a particular discipline you have to understand what is underneath all of the tangible, visible writing, reading, thinking, performing and speaking activity that makes it all look and sound and feel the way it does. As Gee (2015) argues, we are always reading *something*, writing *something*, doing *something*, and the *somethings* that count as valuable enough to be read, written, spoken about and shared are decided on by groups of people that share a socially significant identity. In other

words, a group of people who all call themselves historians have decided on a shared set of practices – ways of knowing, doing and being – that newcomers to this discipline called History can be socialized into through engaging with the curriculum, teaching, learning and assessment activities. These practices are not set in stone, they are mutable and can (and should) change over time. The point, for now, is that at a significant level they are shared and constitute the basis for taking on and enacting the identity of ‘historian’ even though there will be many nuances (and challenges) to what this looks and sounds like within and across higher education contexts.

What sets History apart from other disciplines in the Humanities? It is not just the subject matter that the discipline is concerned with. It is also a much more deeply held set of beliefs about who a historian is and what a historian does: what they value, believe, critique, and how they express this in researching, reading, writing, debating, and speaking about their work. Gee (2015) calls these sets of beliefs and practices ‘big D Discourses’ (hereafter referred to as Discourses) to separate them from other kinds of ‘little d discourses’, such as those we encounter in more obvious ways, for example, the discourse of post-colonial history or the discourse of medieval history. We will come back to this term later in this chapter and in further chapters, building on this initial understanding and conceptualization.

In this chapter, we are conceptualizing the curriculum as a living process that needs to socialize new students into Discourses, through enabling them to learn about, read, speak and write about different knowledges and take on and develop disciplinary identities. What Legitimation Code Theory (LCT) offers us is an accessible way of theorizing and characterizing the what, how and who of curriculum more specifically and clearly. We are thus moving, in the next section, into the first of the LCT ‘tools’ offered in the book, Specialization, which will be used to make sense of different sets of principles underlying practices using illustrative data from two different disciplines.

Specialization codes and the specialization plane

As explained in more detail in Chapter 1 of the book, LCT is a sociological framework developed by Karl Maton from the late 1990s onwards. The framework as a whole has three active dimensions or sets of concepts for analyzing practices, dispositions and fields (see Maton, 2014, pp. 1–22; 2016). These concepts examine different aspects of what counts as valid or legitimate as different kinds of *legitimation codes*. Here we shall draw on tools from one dimension: Specialization.

Specialization, in essence, is concerned with what makes practices, beliefs, actors and so on special: what marks *this* knowledge, *these* kinds of knowers, practices and ways of being out from others, so that we can call this ‘History’, that ‘Sociology’, and that ‘Chemistry’ and have a shared understanding of what that means for both knowledge and knowing. This dimension of LCT characterizes the ways in which disciplines specialize both *knowledge* and *knowers* by seeing two different, but related, aspects of knowledge. LCT explains that we can see how we as people relate

to or engage with knowledge and the power relations, levels of access, and personal dispositions of knowers as part of that knowledge. We can also see how pieces of knowledge relate to other pieces of knowledge and how these pieces of knowledge structure and describe the world around us (for a detailed account of how Specialization has been developed, see Maton, 2007; 2014, especially Chapters 1 and 2; 2016). More simply put, this dimension of the framework enables us to see not only *who* is doing the knowing and *how* we want them to act, write, think and behave, but also *what* they need to know in the form of the principled, technical, procedural disciplinary knowledges and skills that will enable them to work and act appropriately. Importantly, we can theorize these two aspects of disciplinary learning in relation to one another, rather than separately. This means, in analysis, we always look at *both* knowledge *and* knowers, rather than either knowledge or knowers in curriculum design and enactment (Maton, 2007).

These two aspects of practices and fields – knowledge and knowers – form the legitimation codes in this dimension of LCT. There are two key concepts here. The first concept encapsulates the ‘what’ that students need to access, use and master. In other words, the technical, procedural ways of working, forms of principled knowledge and specialized practices students are learning. Principled knowledge here refers to knowledge that combines ‘how’ and ‘why’, so not just how to perform a task or practice, but also seeing that the performance involves choices and requires understanding of why you can make one choice rather than another. These are *epistemic relations*. Examples here could be the conceptual and practical steps in making a clothing pattern or the technical procedure for titrating a chemical solution. As you will see a little later on in the analysis, and in Figure 2.1 and Figure 2.2, Maton has developed technical notation for the concepts and codes. As such, epistemic relations is written as ‘ER’. In analyzing particular dispositions, fields and practices, these relations within knowledge can be relatively stronger or weaker along a continuum of positions: in some practices epistemic relations may be emphasized and thus stronger (ER+) and in others they may be weaker (ER–).

The second concept refers to relations to knowledge, to ‘who’ is working with, creating and knowing the knowledge. These are termed *social relations* and they enable analysis of the behaviours, attitudes, and dispositions of knowers (Maton, 2014, pp. 23–42; 2016). Examples here could include what would be regarded as a ‘creative’ approach to designing a new garment or how to write a critical account of a well-known event, such as the Angolan War. There are different ‘procedural’ ways to go about doing this, but what is given greater attention here is not how the designing or critiquing is done procedurally. The emphasis here is on what the knower shows as evidence of creativity or critical thinking and whether they are doing this in ways that are recognized or valued, or not. In LCT, social relations is notated as ‘SR’ (e.g., Figure 2.1; Figure 2.2). Like epistemic relations, social relations can also be relatively stronger (SR+) and weaker (SR–) along a continuum of strengths.

What is important to keep in mind when doing a specialization analysis is that in every discipline and in every analysis of practices, dispositions or fields, there is

always knowledge and there are always knowers (see Maton, 2007). However, it is seldom the case that both have equal weight and importance in the curriculum and learning outcomes. In other words, in most disciplines the learning and development of one is given priority or emphasized over nurturing the other. While there are cases where neither is particularly focused on, or both are equally important, these are less common. This means that epistemic relations and social relations can be stronger (+) and weaker (-), showing which is being emphasized in any particular context or activity that is being analyzed. When we combine different realizations of ER and SR, or epistemic relations and social relations, we get different *specialization codes*.

There are four specialization codes mapped onto a simple plane. The plane is a powerful explanatory tool in analysis and also practice when we are looking at curriculum – the focus of this chapter – because it captures a ‘topology’ of practices with possibilities for significant nuance and infinite gradations of emphasis. In simpler terms, the specialization plane offers us a wide range of nuanced ways of characterizing knowledge and knower practices. For example, we can analyze practices and activities across one assessment plan comprising different kinds of tasks, the content and form of different module curricula, the learning enabled in different modules in a coherent programme (e.g., Development Studies or Physiotherapy). Each quadrant (see Figure 2.1) comprises epistemic relations and social relations brought together into *specialization codes*. The plane offers us a language for talking about practices as we analyze them within our own contexts. Within each code, then, through the relative strengthening and weakening of epistemic relations (the what and how of knowledge) and social relations (who is doing the knowing work), we can see change over time and shifts in practices, which is so important in educational research. If you feel a bit overwhelmed right now, this will become clearer in a little while when we start looking at actual examples, so keep reading and bear with me a little longer.

As shown in Figure 2.1, there are four main specialization codes: knowledge codes, knower codes, elite codes and relativist codes.

Knowledge codes (ER+, SR-) give priority in curriculum to the acquisition of procedural, technical and/or principled knowledge. In knowledge-code disciplines, students are successful if they can master this knowledge and use it in appropriate ways, such as Physics students learning to conduct laboratory experiments and write up their results in specifically structured lab reports, or Accounting students learning to apply specific forensic procedures to analysing or creating an audit report. Who students are – their beliefs, values, dispositions towards knowledge in the discipline (the more tacit aspects of the big ‘D’ Discourse) – is less an overt focus of the curriculum. It is not absent; it is just relatively weaker.

Knower codes (ER-, SR+) emphasize teaching students to become a particular kind of thinker or actor. This encompasses how students need to read, write, think, speak about and engage with knowledge and with people, how they need to behave and act, their beliefs and values. Think here of a Political Science student: whether they are studying African political theory, European political theory or systems of

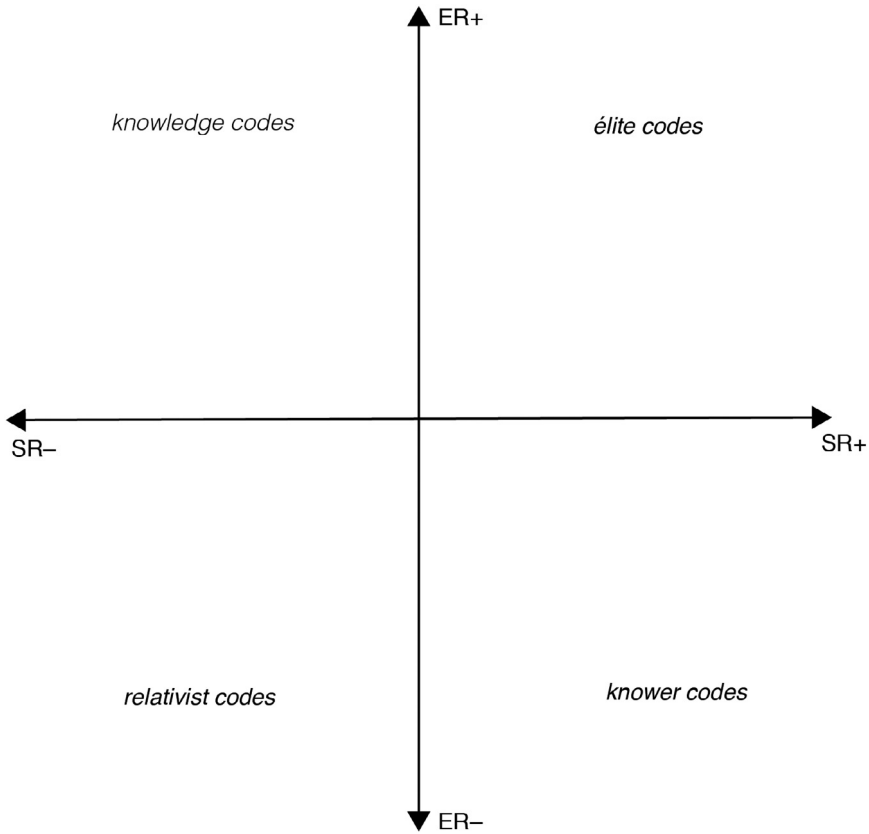


FIGURE 2.1 The specialization plane
 Source: Maton (2014, 30)

government, underpinning the knowledge they are engaging with will be an orientation towards critical thinking, debate, argumentation, and analysis. Or a feminist/gender studies scholar who needs to develop criticality and values related to analyzing and critiquing patriarchy and misogyny, for example. The knowledge is not completely arbitrary, as there may be particular influential writers and thinkers that the discipline agrees students need to know, but knowing the knowledge in a theoretical or technical way is not the basis of successful achievement in these disciplines.

Élite codes (ER+, SR+) value both specific forms of knowledge (technical, practical, procedural and so on) and particular ways of being, as mastery of both is necessary for successful achievement in these disciplines or subjects. Music education at higher level has been shown to be examples of *élite codes* in published research (see Lamont & Maton, 2008).

Relativist codes (ER-, SR-) do not place particular value on either and may feel to students a little like a discipline without any ‘rules of the game’. An example

here might be a module that is taught outside of a particular discipline, without its own specified knowledge or knower base. An example might be a communication or study support course that teaches students more generic essay forms, communication skills (e.g., letter writing, writing emails) and note-taking, etc. that are not obviously specific to the disciplines students are studying.

All disciplines or subjects have to be carefully analyzed on their own merits and within their own context to be assigned a broad specialization code. It is not really possible to say that Political Science will always be a knower code everywhere, or that Law will always be a knowledge code (see Clarence, 2014), for example. Also, following on from the comment above that within each quadrant of the plane there are differing gradations of strength and weakness in the epistemic relations and social relations, within Political Science or Law, some modules may exhibit stronger epistemic relations than others in the same year level or programme or weaker social relations (think perhaps of Civil Procedure and Preparing for Legal Practice; one might be more procedural and focused on process and rules and the other more on how to be a legal professional in context). Further, while two disciplines in the social sciences – say, Political Science and Sociology – might both be knower codes, broadly speaking, they are not the same kind of knower code. The point here is that the plane makes space, in research and practice, for shifting and changing within and across modules, programmes and also institutions over time, and that this is important in educational practice.

In enacting a specialization analysis to work out a critical dimension of your discipline's underlying organizing principles, you need to approach your data – in the case analyzed here, curriculum documents, learning outcomes, and perhaps also teaching activities – with an open mind and a careful eye on two important aspects of Specialization: the *focus* [of curriculum, teaching and assessment] and the *basis* (Maton, 2014, p. 31). I am going to mark these in italics for the rest of the chapter, following Maton, so that they are noted as specialist terms where they refer to Specialization.

The *focus* refers to *what* is overtly being taught or assessed. For example, you may set an assignment that asks students to read a theoretical text and relate the theory to a contextual case or example. You may set a practical task where students need to work in groups to find information, solve a problem and make a presentation, where the mark is for the presentation and how they speak, rather than only what they speak about. The *focus* in the first case might be on students' ability to understand and use theory in a particular way; in the second, it may be on their ability to work well with others and make a well-developed, clear oral presentation. Looking at just the *focus*, you may be tempted to think that the first example is more of a knowledge code and the second more of a knower code. However, before jumping into a task-by-task or module-by-module reading of your or a colleague's curriculum, consider that the *focus* of any curriculum can and does change from semester to semester or year to year: new readings can be introduced, new case studies, problems and tasks can be designed, and topical issues can be incorporated into the curriculum. The sequence or organization of the curriculum can also change. Examples may be new pieces of legislation that

influence your field of research and practice (such as social work, law or data science) or new techniques for performing experiments or patient care or designing a piece of jewellery, and so on. In addition, bringing in different teaching tools, assessment tasks and teaching and learning activities, especially where lecturers have been encouraged to adopt approaches such as ‘blended’ or ‘inquiry-focused’ learning, may shift the *focus* of the curriculum.

What changes less rapidly is the *basis* that the *focus* needs to connect with and serve. By this is meant the underlying ‘organizing principles’ (Maton, 2014, p. 16) that indicate the core learning that needs to be mastered; the fundamental skills and practices (ways of doing), knowledge and ways of knowing, and dispositions and values (ways of being) that will mark your graduates as ‘insiders’ to the field, as qualified and successful knowers. In Physics, this would be mastery of the technical, procedural scientific knowledge and skills that make one able to design, carry out and present the results of complex experiments in a lab, for example. In Sociology, this might be mastery of reading multifaceted arguments, considering these critically, and presenting one’s own evidence-based, coherent argument in response to those contained in disciplinary texts. The *focus* of certain Physics assignments during an undergraduate degree programme may be on developing the ability to work with others, make strong oral presentations or display a certain kind of personal or professional disposition, which all sound a bit ‘knowery’. However, the *basis* may remain a knowledge code, even though there will be assignments or activities that ask for more knower-related outcomes. All of those assignments and activities will still be ultimately developing scientists who are well trained in the legitimated or specialized procedures, techniques and ways of enacting Physics.

It is important to remember, in working on your own specialization analysis with your own curriculum that there is no ‘good code’ or ‘bad code’ within Specialization, and you are not trying to aim for the ‘right code’. If you determine from reading this chapter that you are teaching in a knower code, then the work before you to make your curriculum responsive to your internal and external contexts is to work out how to make that code as clear and achievable as possible for all your students. The codes are not in competition with one another; they represent different legitimate sets of underlying organizing principles that make up a whole disciplinary map. A university, and the society it connects to, needs different kinds of knowers and different knowledges to be legitimated and developed and this differentiation must be conceptualized and developed within the curriculum. The value of using specialization codes to analyze a curriculum (or teaching or assessment) is in helping lecturers and curriculum designers to make clear the rules of their discipline and aligning their teaching materials, activities and tasks with these so that students are able to become successful knowers (see Figure 2.2 for examples from published studies).

I asked you a little earlier to bear with me a bit if you were feeling like all the theory in this section was overwhelming you. LCT is a complex theory and can be difficult to grapple with when you meet it for the first time. This next section will look at data from my doctoral and postdoctoral research and put this theory to work

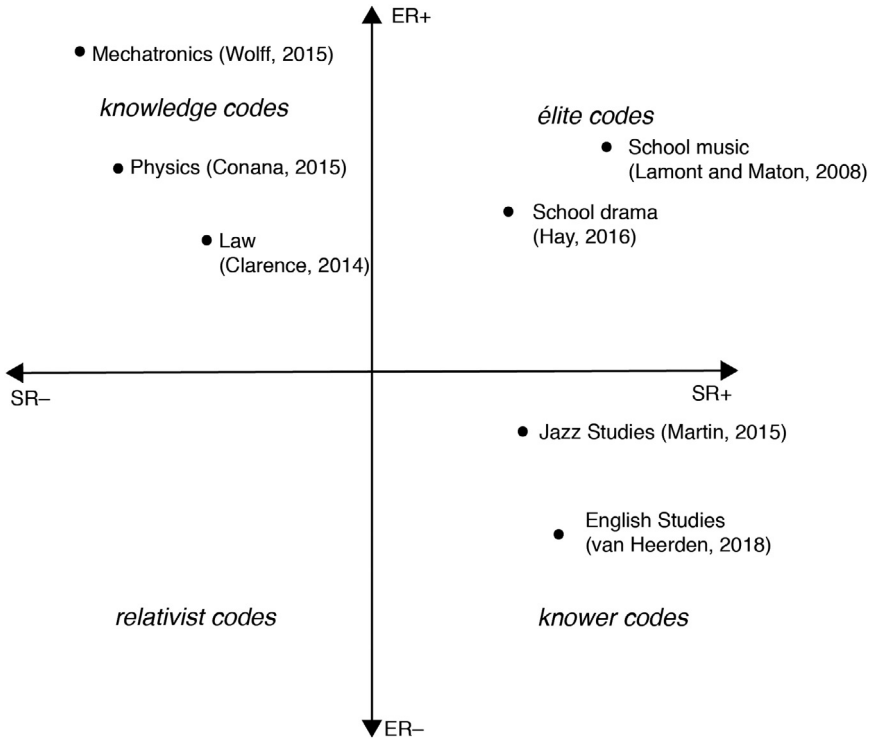


FIGURE 2.2 Specialization plane for part of the disciplinary map
Note: Drawn from studies by Clarence (2014), Conana (2015); Lamont & Maton (2008); van Heerden (2018); Wolff (2015).

in analyzing and making sense of Specialization as explained here. These data come from different South African university curriculum or course guides, published in a PhD and postdoctoral study respectively. Although these examples are local in this sense, they will likely be familiar in tone and form to many readers. The analysis will draw data from two course guides offered to students as descriptive of what they will be studying, and how, over the course of a semester.

Doing a specialization analysis

Example 1 Comparative Politics course guide extract

What is this course about?

Comparative Politics is a sub-field within the broader discipline of Political Studies. As the name suggests, Comparative Politics typically involves some element of comparison. The focus is usually on domestic politics (i.e. politics within states rather than between states). In this course, we will focus particularly on democracy. We are

going to be thinking about what democracy is and then comparing four countries which are usually considered democracies. By the end of this course you should be able to:

- Describe what *Comparative Politics* is.
- Critically evaluate the field of Comparative Politics highlighting some of its strengths and weaknesses as a field of study.
- Critically discuss different ways of understanding democracy.
- Relate these different ways of understanding democracy to case studies.
- Know the basics about politics in the following four countries: South Africa, Brazil, India and Senegal.
- Be able to compare the four countries in relation to the way in which democracy is (or is not) realised in these four countries.

In the first example, look at the way in which the writer of this module guide (also the lecturer of the module) has communicated to students the outcomes of this curriculum as well as its *focus* (the act of comparing aspects of different countries and their governments). The *italics* all note knowledge – the ‘what’ that the module is organized around. The module does require students to acquire and be able to relate or describe basic and important knowledge. But this knowledge is required for a purpose: looking at the underlining shows us the core work of the curriculum (the *basis*). These points communicate to students the ways in which they are required to use that knowledge to critically consider, evaluate and then selectively compare aspects of democracy in four case studies. The knowledge about the four case studies and democracy is the means within which to achieve these more crucial ends. They will do this work in tutorials and also in their written assignments, such as essays and exams.

Looking back a little at the difference between *focus* and *basis*, how would you code this discipline, based on this extract? Look back at Figure 2.1 and decide which of the four quadrants (codes) you would place this in and why.

I started, in my research, by looking for the *basis* of successful achievement. In this discipline, expressed in this rather typical outline, the *basis* is related to developing certain ways of knowing and being, rather than acquiring and understanding theoretical or technical knowledge. What this discipline, Political Science, values is critical thinkers who can understand, analyze, select knowledge, and perform a critical act of focused comparison. While that undoubtedly requires students to have accurate knowledge and information about the social world (e.g., the four case studies), the acquisition of that knowledge is a means to the end, rather than an end in itself. I determined that the epistemic relations here were weaker and the social relations stronger: in other words, acquiring specific knowledge was not the *basis* for successful achievement; rather, demonstrating particular forms of knowing and being was. This represented a *knower code* (ER–, SR+).

Different knower codes can be analyzed in a similar manner by looking at the ways in which the ‘what’ and the ‘how’ or ‘who’ are expressed, not just in the verbs used (e.g., critically evaluate, describe, name, etc.), but also in the ways in which the outcomes are tied to particular curriculum and assessment tasks and

outcomes. What you are looking for, as a starting point at least, is emphasis on how students need to work with knowledge and behave or act, rather than what knowledge they need to have.

In the next example, I have similarly noted terms and phrases related to knowledge (principled, procedural and/or technical knowledge) in *italics*, and phrases or terms related to being a knower (the ways in which students need to act, think, behave and so on) with underlining. Based on this extract would you code this discipline? Look again at Figure 2.1 and work out where you think this might be placed on the plane and why.

Example 2 Law of Succession course guide extract

Module Overview

The Law of Succession regulates the devolution (distribution or division) of the assets of an estate owner upon such estate owner's death. In this regard two principal possibilities present themselves. An estate owner can, whilst alive, provide a documented indication as to the manner in which her/his assets should be divided upon death. Such documented indication, stipulating who should be the estate owner's successors (beneficiaries) and how much of the estate owner's assets each successor is to receive, is usually contained in a will. Whenever an estate owner leaves a will in terms of which her/his assets are to be distributed to her/his successors, the law of testate succession is at hand. Should an estate owner die without leaving a (valid) will, the law of intestate succession will govern the devolution of her/his estate assets. The Law of Succession is therefore divisible into two broad categories, namely the Law of Intestate Succession and the Law of Testate Succession. A third possibility, Succession by Contract, exists, but only in limited circumstances. This module in the Law of Succession is divided along similar lines: after the introductory part to the module, the Law of Intestate Succession is examined; this examination is followed by an analysis of the Law of Testate Succession which includes a study of Succession by Contract.

The module is aimed at *providing students with a sound knowledge of the fundamental legal-theoretical principles, applicable statutory framework and relevant jurisprudence on the South African Law of Succession*. The module focuses on an analysis of the *two principal statutes pertinent to the Law of Succession*, namely the *Intestate Succession Act 81 of 1987* and the *Wills Act 7 of 1953*, complemented by an investigation into the *foremost judgments on the Law of Succession* and an exposition on *a number of common-law rules and principles* pertinent to the Law of Succession.

The main themes to be explored in the module are the *impact of constitutionalism on the Law of Succession*; the *devolution of a deceased estate in terms of the Intestate Succession Act*; the *formal aspects pertinent to wills*; the *revocation of wills*; the *content of wills*; *succession by contract*; and the *interpretation and rectification of wills*.

The Law of Succession, along with the Law pertaining to the Administration of Deceased Estates, constitutes a major legal discipline within Private Law. It requires students to engage with its content in a focused, analytical and critical manner in order to gain a sound understanding of its subject-matter. As such, the module is aligned to the outcomes for the LL.B programme and the [University's] Charter on Graduate Attributes, particularly to yield graduates who are inquiry-focused and knowledgeable as well as critically and relevantly literate.

Here, the *focus* and *basis* of this discipline align rather clearly. If you look at the preamble in paragraphs one and two describing the knowledge that students will be working with, you will see that the primary goal here is for students to have a sound, critical understanding of the main statutory law related to succession and estates, which will be gained through ‘investigation’ of the two main Acts and an ‘exposition’ of related common-law principles and rules. While further on you can see that the lecturer here mentions the need for students to be ‘analytical and critical’ in their engagement with this knowledge, the ways in which they need to express this is not specified. It is far more vague and generic in how it is expressed relative to the clear, specific, detailed account of the principled disciplinary knowledge students need to know, understand and explain in their class and assignment work. The understanding and technical mastery of the knowledge is the *basis* for successful achievement and recognition as a legitimate knower in this discipline. Thus, I coded the epistemic relations as stronger relative to the social relations here and argue that this represents a *knowledge code* (ER+, SR–).

Different knowledge codes can be analyzed in similar ways: again, look at the verbs that are used (e.g., know, list, describe, discuss) and also what they are pointing to. Is the emphasis on knowledge and the technical, practical or procedural gathering and handling of that knowledge? If so, the basis of success may well be a knowledge code. Consider the study of thermodynamics, which is a branch of science concerned with understanding the relationships between heat energy and other forms of energy, or inorganic chemistry, which works with the synthesis, behaviour and composition of organometallic and inorganic compounds (e.g., sodium chloride as table salt). In both of these disciplines, what is given the greatest emphasis as the *basis* for successful achievement is knowing, understanding and being able to use knowledge to solve problems related to the natural or physical world in technical or agreed-upon procedural ways, for example, explaining the energy process that might lead to condensation forming on the outside of a gas cylinder on a warm day (thermodynamics, Georgiou, Maton & Sharma, 2014) or the Grignard Reaction (chemistry, Blackie, 2014).

In working out your own discipline’s specialization code, what you are doing is applying an empowering explanatory theory that can illuminate and characterize what makes your discipline special. This is empowering for lecturers, for academic developers whose role is to support and guide lecturers, and ultimately, then, for students. But this work is part on an ongoing process, one that you can begin to work on in considering your own curriculum, what you are communicating to your students about the *focus* and *basis* for successful achievement, and how they (and you) see and interpret this in module and study guides, teaching materials and so on. The questions in the final section, below, may help get this process started.

Conclusion

You may be able to see something of your own curriculum in these two examples and already be forming a basic sense of where your discipline might be placed in

the specialization plane (Figure 2.1). But what is the next step, practically, once you have worked with the theory to analyze and describe the nature of the ‘game’ your students need to play and the ‘rules’ they need to follow?

We started this chapter thinking about curriculum and what creating a well-rounded, ‘responsive’ curriculum would entail. Specifically, we looked at questions of genericism in higher education and the pull of the employability skills discourse encompassing notions of ‘graduate attributes’ captured in university-wide charters and statements of purpose. We looked at how universities tend to push genericism and a focus on skills development to increase graduate work-readiness. This shifts the focus away from specialized knowledge and ways of knowing, doing and being, which is a crucial aspect of university study. Students come to university to learn specialized, powerful knowledge (Wheelahan, 2010), to become specialist knowers – engineers, doctors, teachers, sociologists, philosophers, and so on. But genericism and associated homogenizing ‘best practice’ approaches to curriculum design tend to flatten and even obscure specialized forms of knowledge and how we know and use these, implying that the ways in which we work with knowledge in particular are similar across a range of very different disciplines and communities of practice.

As I argued earlier, if knowledge and the ways in which we write about it, think about it, read about it and debate it are not generic, then how can we design curricula based on the acquisition of generic attributes, skills and practices? We cannot. You may feel I am overstating the case as regards ‘employability’ and the effects of this influence on curriculum, especially if you work in a context that is critical of this trend already. But this is not the case everywhere, meaning that we need to reiterate the necessity of being carefully and critically aware of these different influences and trends, because so many of them are tacit or even invisible on a day-to-day level. Yet, they are profoundly powerful in shaping policy, funding distribution, research agendas, and for academic lecturers and developers especially, curriculum, teaching and student-facing work.

To enact a careful critique of these different influences on our own work and on the ways in which students experience higher education, we need a theorized approach to teaching and learning. Working with theory offers us a point of reference and a buoy of sorts in a sea of teaching tips, workshops, bureaucratic forms, advice, research, and so on that can make you feel quite unsure of what you should be doing as a teacher and facilitator of student learning. Theory enables us to create a sensible, meaningful holding structure or framework, against which we can weigh advice, tips, new trends and so on. In particular, a practical framework like LCT, and within it the dimension of Specialization we have looked at in this chapter, enables us to work out in accessible terms what knowledge we specialize, how this knowledge specializes us, and what ways of knowing, being and doing we make legitimate in the curriculum. In other words, these theoretical tools can help us to better see how and why the knowledge and ways of knowing, doing and being in our disciplines are indeed specialized and look more critically at graduate attributes, at employability skills, and at other discourses such as those related to decolonizing and re-centring knowledge through a

disciplinary lens. This is vital work in a world increasingly concerned with emphasizing economic over social, human ends.

In creating a truly responsive curriculum, we need to consider both the individual and the social: the students who place their hopes for their future with us and the society and workplaces in which they live and will move into after graduation. But we need to do this from within a framework that enables us to see what our discipline offers students by way of specialized knowledge, ways of knowing, doing, being, valuing and so on, as part of a holistic approach to curriculum that may also need to embrace more generalized sets of practices and values (Table 2.1). These need to be clearly related to the different, legitimate sets of ‘rules’ that need to be made visible to all students and not just those who already know how to play the game or have the means to figure it out (see Jacobs, 2007; Bharuthram & McKenna, 2006). Specialization can thus enable practical change in curriculum design and enactment.

Questions for further reflection and action

- Get together your course outlines, module descriptors, learning outcomes, study guides for students and so on – all the documents that indicate to you and your students the *focus* of your module and what the *basis* for achievement is. Start by looking at the learning outcomes and descriptors of what the course is and what comprises the study materials. Can you see the *focus* and the *basis*? What tells you which is which? Can you tentatively ‘code’ parts of your curriculum and place your module on the specialization plane? Think about where your discipline as a whole might be placed in terms of what is fundamental for students to master to be successful. How does your module reflect this? You could do this on your own, or better, with colleagues or peers in your department or programme. Compare and discuss your modules and how they fit together and speak to one another within the plane.
- You could then move on to look at the ways in which the curriculum is organized or sequenced: what comes first, second; does it ‘build’ over time or are the topics or knowledge not aggregative in how they are organized? Are there points in how the different parts (units, topics, etc.) are described and set out where the *focus* could be seen as shifting from perhaps more ‘knowledgey’ to ‘knowery’ or vice versa (e.g., different kinds of assessment tasks, moving from ‘theory’ to ‘application’)? How could you explain the shift to students so that they see what is happening and why, against the underlying *basis* for the whole module as part of the discipline at a broader level? In other words, how do you tell them exactly what they are doing, why, and how it fits with what they have been doing and what will be coming next?
- If you are co-teaching, in what ways can a specialization analysis of the overall curriculum plan and the language being used (in the learning outcomes and the description of the expectations of each ‘unit’ or part of the course, any revision questions, and so on) help you to align the different parts of the curriculum? You want to each have your own space to work as a unique

academic teacher and person, but you need to work in a coordinated way, using the same terms, language and so on as far as possible. Or, to go back to the previous bullet point and try to work out how to signal the use of different terms and language and explain why the change and what they mean, so that students see how the ‘game’ is playing out and can keep up.

In many cases, what analyzing and thinking about your teaching and curriculum with Specialization enables is not necessarily rewriting your whole curriculum. It offers glimpses into what we are really trying to achieve with student learning and development, beyond only what we get caught up in during the day-to-day, such as marking assignments, dealing with student queries, managing a large class and so on. Specialization analyses enable us to take a step back and consider what we are doing with the course or module we are teaching, where it fits into the whole programme students are taking on, and how we can communicate purpose, aims, knowledge, ways of knowing, doing and being, more clearly and effectively. We do not necessarily have full control over what we teach, when and to whom – there are many different pressures that lecturers have to consider, balance and respond to every day, at numerous levels within the university. But we do have agency in deciding how we teach and how we show students what they are learning, why it matters, how to make sense of the world through the lenses we offer them, and how to achieve greater success.

In the next chapter we will build on this initial analysis of the ‘rules of the game’ to consider why the selected knowledge in the curriculum is legitimated over other forms or types of knowledge and how to theorize curriculum design and change using a different part of the dimension of Specialization.

Notes

- 1 I am using the term *curriculum* to encompass ‘what is taught, how it is taught and assessed, as well as who the teachers are, and who the students are’ (Quinn & Vorster, 2019, p. 13).
- 2 These terms are explained in Chapter 1 in detail, but to recap briefly, ‘ways of knowing, doing and being’ encompasses what might be termed skills, practices, literacies and dispositions or actions, and speaks to both explicit and tacit aspects of the disciplines that mark out their specific nature and character. This term references the work of James Paul Gee (2015), as my understanding of ways of being, in particular, is heavily influenced by his work.

References

- Bharuthram, S., & McKenna, S. (2006). A writer–respondent intervention as a means of developing academic literacy. *Teaching in Higher Education*, 11(4), 495–507.
- Blackie, M. A. (2014). Creating semantic waves: Using Legitimation Code Theory as a tool to aid the teaching of chemistry. *Chemistry Education Research and Practice*, 15(4), 462–469.
- Case, J. M. (2013). *Researching student learning in higher education: A social realist approach*. London: Routledge.
- Case, J. M., Marshall, D., McKenna, S., & Mogashana, D. (2018). *Going to university. The influence of higher education on the lives of young South Africans*. Cape Town: African Minds.

- Clarence, S. (2014). *Enabling cumulative knowledge-building through teaching: A Legitimation Code Theory analysis of pedagogic practice in Law and Political Science*. (Doctoral dissertation, Rhodes University, Makhanda, South Africa). Retrieved from: <http://hdl.handle.net/10962/d1011763>.
- Conana, H. C. (2015). *Using semantic profiling to characterize pedagogical practices and student learning: A case study in two introductory physics courses*. (Doctoral dissertation, University of the Western Cape, Cape Town, South Africa). Retrieved from: <http://hdl.handle.net/11394/4962>.
- Council on Higher Education (CHE). (2013). *A proposal for undergraduate curriculum reform in South Africa: The case for a flexible curriculum structure. Report of the Task Team on undergraduate curriculum structure*. Pretoria: CHE. http://www.che.ac.za/media_and_publications/research/proposal-undergraduate-curriculum-reform-south-africa-case-flexible.
- Gee, J. P. (2015). *Social linguistics and literacies: Ideology in discourses* (5th edition). Abingdon: Routledge.
- Georgiou, H., Maton, K., & Sharma, M. (2014). Recovering knowledge for science education research: Exploring the 'Icarus effect' in student work. *Canadian Journal of Science, Mathematics and Technology Education*, 14(3), 252–268.
- Holmes, L. (2001). Reconsidering graduate employability: The 'graduate identity' approach. *Quality in Higher Education*, 7(2), 111–119.
- Jacobs, C. (2016). Opening up the curriculum: Moving from the normative to the transformative in teachers' understandings of disciplinary literacy practices. In T. M. Lillis, K. Harrington, M. Lea & S. Mitchell (Eds.), *Working with academic literacies: Case studies towards transformative practice* (pp. 131–141). Colorado: WAC Clearinghouse/Parlor Press.
- Jacobs, C. (2019). Keynote address, Annual HELTASA Conference, 27–29 November 2019, Rhodes University, South Africa. <https://www.youtube.com/watch?v=BUXHGCXCcOMc&t=2249s>.
- Lamont, A., & Maton, K. (2008). Choosing music: Exploratory studies into the low uptake of music GCSE. *British Journal of Music Education*, 25(3), 267–282.
- Luckett, K. (2001). A proposal for an epistemically diverse curriculum for South African higher education in the 21st century. *South African Journal of Higher Education*, 15(2), 49–61.
- Luckett, K. (2009). The relationship between knowledge structure and curriculum: A case study in sociology. *Studies in Higher Education*, 34(4), 441–453.
- Luckett, K., Morreira, S., & Bhajinath, M. (2019). Decolonising the curriculum: Recontextualisation, identity and self-critique in a post-apartheid university. In L. Quinn (Ed.), *Re-imagining curriculum: Spaces for disruption* (pp. 23–43). Stellenbosch: SUNPress.
- McCowan, T. (2017). Higher education, unbundling, and the end of the university as we know it. *Oxford Review of Education*, 43(6), 733–748.
- Martin, J. L. (2015). Musicality and musicianship: Specialization in jazz studies. In K. Maton, S. Hood & S. Shay (Eds.), 2016. *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 193–213). London: Routledge.
- Martin, J. R., Maton, K., & Doran, Y. J. (Eds.) 2020. *Assessing academic discourse: Systemic functional linguistics and Legitimation Code Theory*. London: Routledge.
- Martin, J. R., Maton, K., & Matrugiolo, E. (2010). Historical cosmologies: Epistemology and axiology in Australian secondary school history. *Revista Signos*, 43(74), 433–463.
- Maton, K. (2007). Knowledge-knower structures in intellectual and educational fields. In F. Christie & J. R. Martin (Eds.), *Language, knowledge and pedagogy: Functional linguistic and sociological perspectives* (pp. 87–108). London: Continuum.
- Maton, K. (2014). *Knowledge and knowers: Towards a realist theory of education*. London: Routledge.
- Maton, K. (2016). Legitimation Code Theory: Building knowledge about knowledge-building. In K. Maton, S. Hood & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 1–24). London: Routledge.

- Maton, K., & Chen, R. T-H. (2020). Specialization codes: Knowledge, knowers and student success. In J. R. Martin, K. Maton & Y. J. Doran (Eds.), *Assessing academic discourse: Systemic functional linguistics and Legitimation Code Theory* (pp. 35–58). London: Routledge.
- Menon, K., & Castrillon, G. (2019). Universities have ‘pivotal role’ to play in Fourth Industrial Revolution. *Daily Maverick*, 15 April. <https://www.dailymaverick.co.za/article/2019-04-15-universities-have-pivotal-role-to-play-in-fourth-industrial-revolution/>
- Mohamedbhai, G. (2014). Massification in higher education institutions in Africa: Causes, consequences and responses. *International Journal of African Higher Education*, 1(1), 59–82.
- Moll, I. (2004). Curriculum responsiveness: The anatomy of a concept. In H. Griesel (Ed.), *Curriculum responsiveness: Case studies in higher education* (pp. 1–19). Pretoria: South African Universities Vice-Chancellors Association.
- Quinn, L., & Vorster, J-A. (2019). Why focus on ‘curriculum’? Why now? The role of academic development. In L. Quinn (Ed.), *Re-imagining curriculum: Spaces for disruption* (pp. 1–22). Stellenbosch: SUNPress.
- Shay, S. (2016). Curricula at the boundaries. *Higher Education*, 71(6), 767–779.
- Singh, M. (2014). Higher education and the public good: Precarious potential? *Acta Academica*, 46(1), 98–118.
- Suleman, F. (2018). The employability skills of higher education graduates: Insights into conceptual frameworks and methodological options. *Higher Education*, 76(2), 263–278.
- Trow, M. (1999). From mass higher education to universal access: The American advantage. *Minerva*, 37(4), 303–328. <https://www.jstor.org/stable/pdf/41827257.pdf>.
- van Heerden, M. (2018). *What lies beneath tutors’ feedback? Examining the role of feedback in developing ‘knowers’ in English Studies*. (Doctoral dissertation, University of the Western Cape, Cape Town, South Africa). Retrieved from: <http://hdl.handle.net/11394/5765>.
- Warren, D. (2002). Curriculum design in a context of widening participation in higher education. *Arts and Humanities in Higher Education*, 1(1), 85–99.
- Wheeler, L. (2010). *Why knowledge matters in curriculum: A social realist argument*. London and Abingdon: Routledge.
- Wolff, K. E. (2015). *Negotiating disciplinary boundaries in engineering problem-solving practice*. (Doctoral dissertation, University of Cape Town, Cape Town, South Africa). Retrieved from: <http://hdl.handle.net/11427/16937>.
- Young, M. F. (2008). From constructivism to realism in the sociology of the curriculum. *Review of Research in Education*, 32(1), 1–28.

3

CAN WE CHANGE THE UNIVERSITY?

Critiquing exclusion in the curriculum

Introduction

The world is changing faster and faster. With increasing global migration and a growth in the international character of student and staff populations, our universities have been changing, too. One of the effects of this change is a gradual opening of critical spaces for re-examinations of the kinds of knowledge systems and ways of knowing, being and doing that are valued in the academy, both tacitly and overtly. The curriculum is the primary means through which values, knowledges, sets of practices and so on are communicated to students, and this of course includes teaching and assessment (which will be discussed in greater detail in the next three chapters). In this chapter I am considering the ways in which ‘canonical’ or set texts, examples made in class and other curriculum materials and choices may tacitly value certain forms of knowing and being that include and recognize some students and exclude or marginalize others in ways that preserve an inequitable status quo in education.

A couple of examples. A lecturer in Philosophy in a traditional, research-intensive university talking about the Enlightenment and its impact on science gives only examples of philosophers such as René Descartes, Immanuel Kant, Voltaire, Baruch Spinoza, David Hume as important and influential thinkers and writers. He leaves out any of the women who pioneered Enlightenment science and philosophy at this time such as Mary Wollstonecraft, Émilie du Châtelet and Anne Conway.¹ Further, none of the examples of influential thinkers trace Enlightenment thinking to an Ethiopian philosopher, Zära Yaqob, working a century before Descartes (who is widely regarded as the founder of this school of thought) (Herbjørnsrud, 2017). Another example is a lecturer in Obstetrics and Gynaecology in a medical school, discussing the origin and history of caesarean sections. The examples and study materials focus on the work of male doctors in urban centres in Europe and the

British colonies, without discussing evidence of successful procedures being performed by indigenous women healers in Uganda in the nineteenth century or by women doctors (many of whom were denied access to medical schools at this time) (U.S. National Library of Medicine, n.d.).

Reinforced over and over, across the curriculum, these texts, examples, cases, and so on, work to exclude and silence the identities or selves of those who do not conform to or personally recognize the dominant identities, knowledge, and ways of knowing and being that are legitimated or recognized as valuable and thus regarded as worth reproducing through education. This is significantly problematic when we are talking about equity in student success: How can you succeed within a system designed in ways that make it difficult to ‘recognise’ yourself (Wheelahan, 2010, p. 163), or form an authentic relationship with disciplinary knowledges and their related ways of knowing, doing and being?

To enable meaningful student success in higher education we need to create and hold open spaces for critical, and probably quite uncomfortable, discussions about changing the kinds of knowledge and knowers we tacitly value and legitimate through our current curricula. So, too, do we need to hold open spaces to look carefully at the ways in which categorizations of knowledge, research methodologies, projects and theories have been imposed onto Indigenous peoples and knowledge systems by the West, which need to be troubled and critiqued (see Connell, 2007; Tuhiwai Smith, 2007). Rather than rushing to quick solutions (if there are such things), it will be more meaningful in the longer term to see the process of opening up the curriculum to previously silenced voices, bodies and knowledges as a process that will remain open and ongoing. If we accept that the world is going to keep changing, socially, politically, culturally and technologically, then we can never really see our curricula as fixed or curriculum change as a process with a definite end. This can be a tough realization, because curriculum transformation is not just an intellectual, administrative project. It is an emotional and personal project too (Quinn & Vorster, 2019); in challenging and changing the university, we will need to be willing to change too. To think of challenging the canon or the ‘way we do things and always have done’ requires both mental and emotional energy. It is hard work. But it is vital work in the context of creating greater and more meaningful conditions for student success.

This chapter moves forward from Chapter 2, where we looked at how to analyze your discipline or subject in terms of its underlying specialization code and at what kinds of knowledges and knowers it legitimates. In a nutshell, Chapter 2 argued that being able to articulate the ‘rules of the game’ in your discipline and the ways in which they specialize knowledge and ways of knowing, doing, and being, is vital in an age of ‘hyper-genericism’ (Fataar, 2019), which emphasizes skills development over nuanced, careful considerations of knowledge in the curriculum, teaching, and learning. But just seeing and articulating the code is not necessarily enough when you consider the wider social, political and cultural contexts that our universities are part of.

Around the world, in both the Global North and South, there are significant debates about the role of higher education within the societies it is supposed to serve, and what kinds of knowledges and ways of knowing, being and doing should be taught, learned, assessed and valued. The kinds of knowledge students are offered and the kinds of people they are allowed or encouraged to become is at the heart of these debates. Knowledge is socially produced in place and time and is influenced by the goals and desires of those who have power and privilege in any given context (Wheelahan, 2010; Young, 2008). To really change the ways society organizes and holds conversations about what it should look like, we need to change the university. The university is a key site of producing and sharing knowledge that has power to shape and change society. This means that those within the university need to use what agency and ability they have to open up spaces for true change: the space we will look at in this chapter is the curriculum, and how you can open it up to different kinds of knowledge and knowers. As the primary means we have for offering students access to different forms of knowledge, as well as through which we enable their specialization as knowers of this knowledge in and across the disciplines, curriculum is a critical space for transformation within the university as a whole.

With the basic Specialization tools introduced in Chapter 2, you can look at your curriculum, teaching and assessment more critically and unpick some of the assumptions you are making in designing and enacting these with colleagues and on your own. But these do not necessarily enable us to go deeper in critiquing the ‘rules of the game’ as we identify them.² We need to be able to find answers to critical questions about whose knowledge and voices are being represented, whose knowledge and voices are not, and what implications this has for creating socially just higher education. This focus on justice is vital for attending to what Mohamedbhai (2014, p. 59) calls ‘equity [of] success’; enabling this more equitable approach to student success is the focus of this book.

One of the most important things we need as educators and academic developers in higher education is accessible and creative tools to keep the conversation open and moving forward in productive, inclusive and sustainable ways. This chapter picks up the work at this point, adding to the ‘toolbox’ we are creating another tool from Specialization that can enable a different kind of curriculum analysis and development process: the *epistemic–pedagogic device* or EPD. This ‘tool’ can help us look deeper at the underlying logics or organizing principles we use to create the curriculum and, in that process, at how we may value and legitimate some forms of knowledge and kinds of knowers, while marginalizing or devaluing others. The idea here is that the more clearly we can see what choices we are actually making and what these may mean for students and for university education, the better chance we have of making critical changes.

This chapter, like Chapter 2, will open with a discussion around the challenges of opening up curricula to change and renewal, especially in response to difficult emotional and personal calls for change, such as those from students calling for the decolonization of university curricula in postcolonial universities in South Africa and the United Kingdom (Garuba, 2015; NUSConnect, 2016). It will move from

this discussion into an explanation of the arena created by the EPD as the theoretical tool used in the analysis of sample data, and then analyze a curriculum in Political Science. The chapter closes with generative questions you may use in your own curriculum analysis and reflection process.

Tracing the development of universities and knowledge in the academy

The first universities in the world opened their doors between the ninth and thirteenth centuries CE in North Africa and what is now Western Europe.³ It is important to note that since their inception, the term ‘university’ has been contested; is not a homogeneously accepted and understood concept. As Gordon (2013) argues, there have been three broad university types over the last several centuries, characteristics of which can be found in modern universities. These are: the university as college, embodied in early ecclesiastical colleges, such as those in Scotland and France around 700 years ago for training priests and theological scholars as well as legal scholars; the research university, the most famous example of which is perhaps the Humboldt University in Berlin; and the technical university, from which modern technicians or universities of technology focused on vocational and professional education derive their mandates. Echoes of these early forms of university, from both Africa and Europe and later North America, can be heard in the curriculum structures, knowledges, and ways of knowing, doing and being that are valued in the modern universities in which academics work today.

Regardless of which kind we are referring to, in the early days of the university it would be safe to say that no women were allowed access, as scholarship and knowledge-creation was an enterprise only available to men. Further, no working class or poor people were admitted, as they did not have access to the kinds of earlier education that would have enabled them to participate fully in academic scholarship. The early universities tended to focus mainly on the study of the natural world as well as theological and legal studies. Over the years, as newer, more modern universities were established and the world began to change and grow, new disciplines and fields were introduced, such as Philosophy, Classical Studies, History, Geography, Mathematics, Medicine. Far more recently, disciplines such as Accounting, Education, Physiotherapy, Women’s and Gender Studies, Film and Theatre Studies and so on have been developed, along with others such as Engineering Sciences, Political Studies, Sociology, Natural and Allied Medicine, and Environmental and Conservation Sciences.

As the kinds of knowledge we can know have changed and grown, so have the technologies that have enabled us to create new knowledge, new skills and practices, and thus new ways of knowing, doing and being. This means that new kinds of knowers and knowledge have been legitimated or acknowledged as valuable and the ‘university’ as a socio-cultural, educational institution has changed enormously over the last 1,200 years. However, admission to higher education of especially people of colour and women has been a relatively recent development in this long history. In

South Africa, for example, universities were especially created during apartheid for people of colour and historically white universities only began admitting black students in any notable numbers in the mid- to late-1980s (Volbrecht & Boughey, 2004). White women were only allowed to register in the late 1880s and in very small numbers compared to the numbers of men on campus at that time.⁴

While most universities and colleges nowadays admit women, disabled, LGBTQI+, black, non-mother tongue, immigrant, international, and working class students, the less inclusive roots of the university as an institution are deep and still shape the kinds of knowers, forms of knowledge, and values that universities continue to reproduce and create. In the last 300–400 years especially, socio-cultural and economic events such as colonialism, institutionalized patriarchy and the rise of xenophobic nationalism have actively and visibly drawn boundaries around who can access education and the rights it enables us to claim, who can possess and create knowledge and who cannot, and what counts as legitimate knowledge ways of knowing, doing and being (see Hlatshwayo & Fomunyam, 2019).

Of course, there are many different kinds of universities and colleges, both publicly and privately funded, and it would be impossible and foolish to homogenize the global higher education sector. However, across the different kinds of universities and different local and national higher education contexts, it is clear that talking about transformation in the higher education sector is difficult. But that cannot mean that we shy away from talking about it or making it happen. In this chapter the focus will be on the transformation of what counts as legitimate knowledge and who the legitimated knowers are in the curriculum. The conversations around how this process could and should unfold are deeply contextual (Quinn & Vorster, 2019) and need to happen on several levels at the same time: at the level of university management, at the level of policy creation and implementation, at the level of teaching, learning and assessment, and at the level of student engagement, to name the more obvious candidates. This chapter uses one university and disciplinary context in the analysis, but the findings have application to curriculum, teaching, and learning in different university and disciplinary contexts.

The evolution of research into teaching and learning

Teaching, learning and assessment has been the subject of higher education research and development in an increasingly concentrated and funded way for around five decades or so. The Society for Research into Higher Education (SRHE) in the United Kingdom was founded in 1965, following recommendations for higher education to generate data and research to improve teaching and learning and, crucially, student well-being in the sector (Shattock, n.d.). In the United States, the Association for the Study of Higher Education (ASHE) was established in 1976 (ashe.ws, n.d). The South African Association of Academic Development (SAAAD) was established in 1986 and has since transformed into the present Higher Education Learning and Teaching Association of Southern Africa (HELTASA) (heltasa.org, n.d.). These are three of

several societies or associations globally that give visibility and legitimacy to research into higher education, from policy studies to studies on student engagement, classroom teaching and learning, assessment, and curriculum development. Thus, even though universities have been around – both in older and newer forms – for a long time, their willingness and ability for self-reflection, critique and theorizing their practice is relatively new.

There are two points here, related to the focus of this chapter. The first is that the whole idea of ‘transforming’ higher education through reimagined curricula, teaching and learning, assessment and so on, is relatively new. It is also understood quite differently across different national, regional and local higher education contexts in response to particular issues, pressures and concerns internal and external to universities. This means that what has to be transformed, how and why, is not necessarily agreed upon or the same within and across contexts. For example, transformation in the post-colony involves a strong critique of colonialism and the ways in which it has shaped what counted (and still counts) as legitimate knowledge, as well as how this system has acted as ‘gate-keeper’ for who legitimate knowers can be. Decolonization discussions are being engaged with in several higher education contexts, in South Africa, Aotearoa New Zealand, Canada and India, to name but a few.⁵

In other contexts, transformation takes a different shape and form and debates may centre on issues of widening access to international students, many of them refugees from very different socio-cultural backgrounds to the admitting country. In the Nordic countries that have been welcoming immigrants and refugees from war-torn regions in the Balkans and the Middle East, for example, immigrants and their children are attending universities that have previously been relatively homogenous in terms of the nationality of their student and faculty bodies (see Jonsson & Rudolphi, 2011). This is creating interesting spaces for discussions around inclusion, exclusion and the (de)legitimation of knowers and knowledge. So, when we talk about transformation of the curriculum and teaching, we need to be quite specific about what that term means for our own university, curriculum and students, and also why that transformative work is necessary. In being more open, reflective and willing to listen, we can create context-relevant, useful and sustainable longer-term changes.

The second point here is that all of this difficult and necessary transformative work requires research: both getting involved in our own research and also working from a research-led base to connect with other scholarly conversations, theories of curriculum and teaching and learning, methodologies, and so on. The Scholarship of Teaching and Learning (SoTL) is a term you may well have heard in your own university. The aim of the SoTL approach to higher education research and practice is to connect research and practice in ways that create a generative and creative conversation between the two. This means perhaps starting with your practice and researching this to either to build on it or critique and diverge from it; or starting with theory and research and working ‘down’ to changing your practice, depending on the concerns you are addressing. Even if you are not doing your own research

(yet), you should be using research to shape your curriculum design practices, your classroom teaching and assessment practices, and your teaching evaluation practices (see also Jacobs, 2019). Drawing on existing research enables us, as academic lecturers and developers, to create theorized, credible plans for our own teaching, connects us with like-minded teachers and researchers across diverse contexts, and may inspire more creative, innovative and locally useful plans we can put into play within our own contexts.

When it comes to transforming curriculum – the focus of this chapter – it is crucial to draw on research and scholarship to lay a foundation for our own transformative work. Curriculum renewal has become increasingly a focus of higher education studies in the last few decades, if you trace the development of this field through papers and books published since the 1980s (Quinn & Vorster, 2019; Shay, 2015). There is, then, a great deal of research you could read in thinking about your own context and your own curriculum. This chapter adds to that body of scholarship by offering a theorized approach to curriculum design from the LCT dimension of Specialization. As indicated at the end of the Introduction, the *epistemic–pedagogic device*, or EPD, will enable us to zoom in on what knowledges and ways of knowing, being and being actually are legitimated in curriculum. Specifically, the rest of this chapter will use the EPD to critique the ways in which the ‘rules of the game’ have been structured so as to open up and transform the curriculum to recognize and legitimate new, diverse knowledges and knowers. It is my hope that this theory and its application here will inspire you to try this with your own curriculum and share this with your department, faculty or wider academic networks.

What knowledge, ways of knowing, and knowers are included and excluded in your curriculum? How would you see potential gaps or silences? What might you do to close or fill these in more equitable, just ways, so that your students are represented in the curriculum, or can ‘recognise’ themselves (Wheelahan, 2010, p. 163)? These questions speak to deeper concerns with the conditions for success in higher education and how we open up these conditions to more diverse groups of students through rethinking what counts as legitimate knowledge and ways of knowing, being and doing, and how we can thereby change the university.

Theorizing knowledge in the curriculum with the epistemic–pedagogic device

The epistemic–pedagogic device (EPD) is part of the dimension of Specialization, which you were introduced to in Chapter 2. The EPD builds on and uses the concepts of *specialization codes* to theorize and answer a different set of questions about higher education access and success. In Chapter 2 we asked ourselves what the underlying organizing principles are in our discipline or subject and how we can articulate these to our students and ourselves. In this chapter, we are going to ask ourselves whether the organizing principles that we identify and articulate are actually opening up access and success to diverse groups of students such that

equity in or of success is achievable for all of our students. The EPD will help us unpack this question and provide a theorized way of describing, critiquing and changing curriculum (and also pedagogy, which we will move on to in Chapter 4).

The arena created by the EPD comprises three interconnected fields, which relate to three different but connected dimensions of developing a curriculum (see Figure 3.1). The field on the far left is the *field of production*. This includes sites where new knowledge is created and circulated, whether in text, visual, symbolic or physical form (i.e., a book or journal article, a painting or film, or a play, textile or technique). This includes, but is not limited to, academic or scholarly knowledge.⁶ If you think of the kinds of knowledge that form part of the average university's disciplinary or subject offerings, you can imagine a wide array of what might count as legitimate or relevant forms of knowledge in the field of production.

In the middle is the *field of recontextualization*. This includes sites where lecturers and curriculum developers draw selected knowledge from the field of production into the curriculum, 'recontextualizing' or transforming it into a form that can be taught and learned by students working at different under- and post-graduate levels.⁷ Here, imagine a play by William Shakespeare performed in a theatre in the field of production, modernized and reinterpreted for a twenty-first century audience to make Shakespeare 'cool' and attractive to a screen-focused generation. How would you use this as teaching material for students studying the dramatic arts? You would not just send them to watch the play and make of it what they will. You would need to think about what role the play in that form has in the overall aims and structure of your curriculum. Why are you including this modernized enactment of the play, rather than a traditional enactment? Perhaps the aim of the curriculum is to have students think critically about classical texts, especially how to reinterpret these and why that might be powerful in the broader field of theatre studies or the dramatic arts. You would also quite likely be connecting the play itself with the principles of performance studies, stagecraft, lighting and sound design, and so on. In essence, you are recontextualizing or 'curricularizing' (Maton, 2014, pp. 43–64), knowledge from the field of production, interpreting its role, form and value within the context of your specific curriculum orientation, purpose and educational aims.

On the far right is the *field of reproduction*. This is where the curriculum is transformed again into pedagogy and assessment. In this part of the arena created by the EPD, the knowledge, skills and practices, and underlying ways of being that you have selected and organized into a coherent curriculum on paper need to be taught to and learned by students. The curriculum thus has to be transformed again or 'pedagogized' (Maton, 2014, p. 51) to be accessible to students. When we design a curriculum we have a certain set of intentions and ideals in mind, especially as regards what successful learning looks and sounds like. But these are usually held with an imagined rather than real student in mind, because we can only really know who our students are, what they know and can do, and what their learning goals are when we meet them. When we do meet our real students and begin

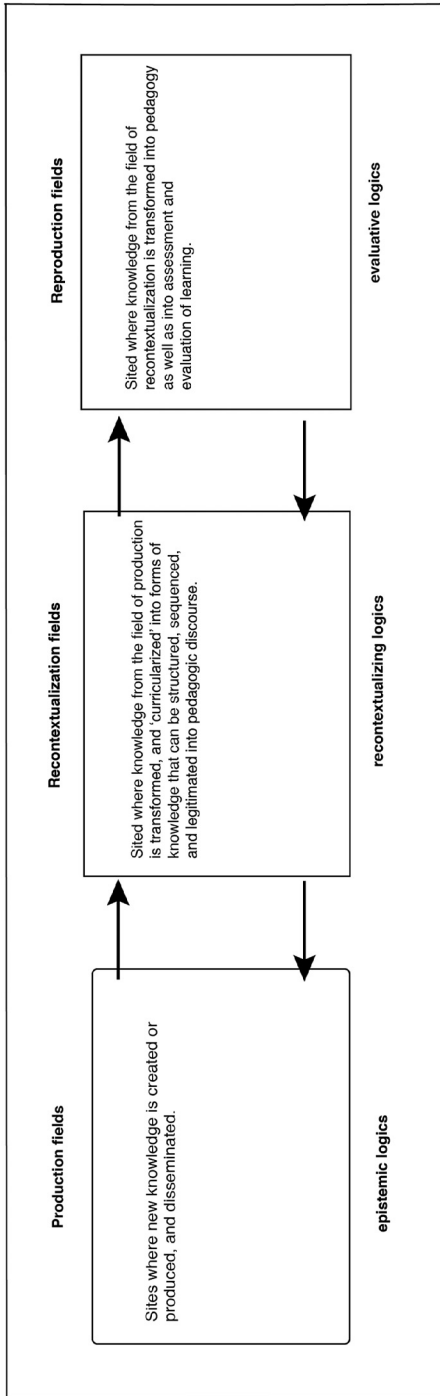


FIGURE 3.1 The arena created by the epistemic–pedagogic device
 Source: Maton (2014), 51

engaging them in a teaching and learning relationship of give and take, our curriculum is turned into realized pedagogy and we may find ourselves changing the pace or order of lessons, slowing some parts down while others may be sped up or moved. This is part of ‘responsive’ curriculum design and teaching, which we looked at in Chapter 2. The field of reproduction, then, transforms the planned curriculum into *enacted* teaching, learning, assessment and evaluation activities (see Bernstein, 2000; Maton, 2014).

These three fields cannot be conflated (flattened into the same field). This is because there are different ‘logics’ (Maton, 2014, p. 52) that underpin, guide and delimit the activity needed to form and reform each field (see Figure 3.1).⁸ Maton uses *logics* to redescribe the original ‘rules’ in Bernstein’s pedagogic device, which the EPD builds on and extends. In essence, Bernstein (2000) argued that each field was organized or regulated by a set of ‘rules’ that regulate practices, as well as who gets access to each field and the knowledge that it contains. Maton redescribes these as ‘logics’; he argues that the term ‘logic’ is less deterministic than ‘rule’ and what we are after is an evolving relational analysis of educational practices, rather than deterministic or reductionist analyses. In addition to the logics underpinning each field, there are deeper, encompassing logics that underpin the entire arena as a whole. Fields of production are underpinned by *epistemic logics*, which regulate the selection, focusing and repositioning of previous knowledge to become new knowledge (Maton, 2014, p. 52). The main role and purpose of this field is to create ‘new’ knowledge in a range of different formats and modalities. Epistemic logics will thus guide what counts as valid or legitimate knowledge in the disciplinary or subject field. The logics – or principles guiding regulation and access – underpinning both fields of production and fields of recontextualization also have implications for knowers, because as Chapter 2 argued, there is always someone creating and learning the knowledge.

Fields of recontextualization are underpinned and guided by *recontextualizing logics* (Maton, 2014, pp. 43–64). These logics regulate the process of transforming knowledge from a chosen field of production into knowledge that can be eventually taught and learned by students. These logics are guided about what counts as a legitimate or valid curriculum, the level of learning at which the students are working, and the kinds of knowledge the particular programme, department, university, regards as worth knowing and learning at a particular moment in time. These logics will therefore be informed by different university contexts, but also by different socio-cultural, regional/national and socio-historical contexts, as well as – importantly – different internal disciplinary patterns. For example, all Mathematics students will learn algebra but not all Sociology students will study development in the Global South. As another example: a progressive liberal arts college teaching English Literature may draw on more socially transformative recontextualizing logics to design a curriculum in which students may read texts written or performed by trans authors, black authors, queer authors, as well as more traditional or ‘mainstream’ authors. However, a curriculum in the same discipline created at a more conservative university or college may consider such a curriculum too

‘progressive’ and may draw on more conservative recontextualizing logics to create a less provocative curriculum. The logics in these two programmes regulate the process of pedagogizing this knowledge from different ideological or value positions. This has implications for who gets access to the knowledge and how they make sense of and relate to it.

Fields of reproduction are informed and guided by *evaluative logics*. These regulate what counts as legitimate evidence of successful learning. When you assess and evaluate your curriculum, enacted through teaching or pedagogy, how do you know that it ‘worked’? In other words, how do you see that your students have learned what they are supposed to have learned, can do what they are supposed to do, and are becoming the kinds of knowers or practitioners the field wants them to become? Evaluative logics connect to recontextualizing logics in many ways: if you have more a liberal and progressive logic informing your curriculum design and content, you may well be teaching in more creative, innovative ways, including how your design materials and construct assessment tasks. Again, these logics or ways of regulating ‘the teaching and learning of pedagogic discourse’ (Maton, 2014, p. 52) also implicate the legitimation of knowers, because in assessing the work as competent or not, you are also assessing a knower in the same vein.

Underpinning and guiding the work done across the entire arena created by the EPD, in each of the three fields, are what Maton (2014) terms *distributive logics*. These, broadly speaking, regulate who gets access to the meanings created, circulated and changed across all three fields, as well as access to the ‘means of creating new knowledge’ (p. 52). The who here may include teachers, researchers and students. Distributive logics are for the most part about who is legitimated or specialized by the field of higher education more broadly, and who is excluded. These logics are therefore powerful in two ways: both in shaping the field of higher education and the different disciplines and subjects that make up the university curriculum, and in exposing the ways in which universities and their disciplines may create spaces of inclusion and legitimation as well as exclusion and delegitimation for different students, knowledges, and so on. The idea of the arena created by the EPD, then, is a powerful tool for seeing how the field is set, for explaining how and why students and lecturers may be experiencing both alienation and connection within the university, and for transforming and changing universities, the knowledge they create and how they ‘curricularize’, ‘pedagogize’ (Maton, 2014, p. 51) and assess knowledge, knowing and being.

Working with the EPD

This book as a whole is focused on understanding, challenging and transforming the conditions that shape both access and success for students in your own context. Through its interconnected three fields, the arena conceptualizes higher education as an ‘arena of struggles’ in which different actors (and indeed different groups within larger groups of actors) battle one another and cooperate with one another to gain and maintain control over these different logics (see Chapter 1, this volume;

Maton, 2014, pp. 1–22, pp. 43–64). The winner of these struggles essentially gets to set the bar for what counts as legitimate: legitimate knowledge, legitimate skills and practices (ways of knowing), and legitimate dispositions and habits (ways of being) (see Bernstein, 2000; Maton, 2014). It is important to understand that these struggles are not always out in the open, loud and obvious. They are often tacit and are fought through different mechanisms, such as policy, procedures around admissions and finance, hiring and promotions decisions, discussions in committee meetings, and so on. They can be fought in larger and smaller ways, but the underlying aim is the same, whether the players realize it or not: control of the means for deciding on what counts as legitimate and therefore worthy of protecting and reproducing. In essence, control of what the university is and who the university is for.

There is, then, much at stake in the process of transforming knowledge from the field of production into curriculum in the field of recontextualization and then again into the field of reproduction (and working in the opposite direction, too, see Figure 3.1). Curriculum and teaching are not arbitrary acts or generic and ‘one-size-fits-all’. Curriculum designers and lecturers have space and agency to consider a range of knowledges and ways of knowing, doing and being that the curriculum needs to include. The curriculum in your context may seem set or given and thus impossible – or at least very difficult – to change. This is especially the case if you are a relatively new lecturer and are teaching someone else’s curriculum, or if you are working in a discipline that has a strong ‘canon’, such as Philosophy, Political Theory, English Studies or Classical Studies. You may find calls from, for example, feminist and decolonial activists difficult to engage with because the curriculum seems too ‘set in stone’ to be changed, because the calls for change seem irrelevant to your discipline, or perhaps because it feels like there is too much at stake for your discipline and its traditions and history. This may also feel true for those working in the sciences, for example, where the undergraduate curriculum tends to begin from ‘foundational’ or base knowledge that has to be in place and clearly understood before further learning and building can be facilitated (e.g., the three laws of Thermodynamics, Newton’s three laws of motion, the Periodic Table of Elements, etc.). There are many reasons you may feel are valid for leaving the curriculum as it is; but equally, there are many important reasons for considering and reflecting on change, renewal and forward-looking development, even in disciplines that have rather firm and broadly agreed-upon knowledge structures (such as Physics, Civil Engineering or Human Anatomy).

This is where the idea of the EPD offers its first useful insight. In the arena, knowledge and ways of knowing, doing and being do not just move from left to right, from the field in which all new knowledge and practice is created to where it is finally taught, assessed and evaluated at university. Knowledge and related ways of knowing, doing and being can also flow in the opposite direction. This means that how your students experience and respond to teaching and assessment can and should influence how you design and develop your curriculum. For example, you can research and write about your curriculum and your teaching and publish this

work in a range of spaces that can then form new knowledge about teaching and learning (including blogs, online newspapers, journals and books). This means that the curriculum can and must change to be responsive to students' learning needs, and to the changing knowledges and ways of knowing, doing and being that are required by the economy and also by society in this global age of rapid change (see Chapter 2, and Moll, 2004).

In Figure 3.1 you will notice the bi-directional arrows in the gaps between the three fields. As argued earlier, following Maton (2014, pp. 43–64), these gaps and their arrows signify that the three fields are analytically distinct, even if they are mixed up with one another in reality. If we do not see clearly the different logics that shape how we create knowledge, how we select and recontextualize that 'raw' knowledge into a form that can be taught and learned, and then how we teach, assess and evaluate learning, we may try and turn different logics into one homogenizing logic. This can have detrimental effects on student success. This is because, as we saw in Chapter 2, different disciplines and subjects have different underlying organizing principles that shape what counts as legitimate knowledge, legitimate skills and practices (ways of knowing and doing), and legitimate ways of being. These are expressed in Chapter 2 in the specialization codes on the specialization plane.

Think, for example, of a knowledge code such as Law (Chapter 2; Clarence, 2014). In the field of production as the site of research as well as practice (e.g., courtroom litigation processes through which judgements are made and recorded, setting precedents in law), you may have statutory, common, Indigenous and constitutional sources of law as well as applications of these that would need to be curricularized into materials to be learned following relatively procedural approaches to research and drafting written texts (i.e., 'heads of argument', 'case summaries', etc.). This field, as indicated earlier, is regulated by *epistemic logics* which guide the 'delocation, refocusing and relocation' of this existing knowledge to become new curricularized knowledge (Maton, 2014, p. 52). In curricularizing this knowledge, moving into the field of recontextualization, the logics shift to those which regulate the creation of pedagogic discourse (how the knowledge is selected and organized into a teachable, modularized curriculum) – *recontextualizing logics*. Here, you may link up the knowledge relocated and refocused from the field of production with other forms of knowledge related to how legal scholars and professionals communicate, what forms this communication takes and so on. In other words, you are not just giving students knowledge; these logics are assisting you in regulating how that knowledge is made sense of or what it means in the context of your discipline, legal system, national context, etc. These shifts and differences in the logics underpinning the work in the EPD will become clearer as we move into the next section, where we analyze illustrative data.

The second key insight offered by the EPD, specifically the gaps between the fields, is that curriculum design and pedagogy is about *choices*. The arrows indicate that choices made in the different fields can transform knowledge in other fields – not just from the field of production to the field of reproduction from left to right (a traditional sense of curriculum), but also from right to left. Thus, rather than moving 'seamlessly' from one side of the device to the other, assuming that the

knowledge is just the knowledge and the skills and practices are just as they are and that nothing can (or should) change, the gaps and arrows between the fields in the EPD invite us to ask critical and challenging questions: Why this knowledge, now, in this context? What decisions (methodologies, theories, research questions) have informed its creation? Is this knowledge open to challenge and what kinds of challenge might I invite my students to make (and how)? Do the choices I have made in selecting knowledge into and organizing the curriculum invite critical input from students as partners in learning, or does it seem like I am more focused on them just receiving or learning what is here? How am I making choices that really respond to *this* context, *this* discipline and *these* students' needs and ways of being?

This second insight is linked to the deeper *distributive logics* or regulating principles that underpin all three fields. Maton (2014) argues that the distributive logics guide or manage exactly what they sound like they might: the distribution of knowledge and legitimacy to the 'players' in the arena created by the EPD. The arena in this case is higher education more broadly and the players are all the people who have a stake in that arena: students, lecturers, perhaps a professional body of external accreditation, university administration and managers (consider all the people or players who have a vested interest in your discipline or subject, internal and external to the university). Distributive logics can be set in different ways: they can be set, probably quite unconsciously as they often are, to reflect the dominant interests in higher education and the society it is part of. In the Global North and parts of the postcolonial Global South, knowledge in the curriculum tends to reflect the needs or desires of those in power – not necessarily those with physical power such as government, but rather those with cultural, social power.

In many, but not all, cases, those with this power are white, male, heterosexual, able-bodied citizens of a country or represent intersections of some of these ways of being. Think of the example from earlier in this chapter about the examples a Philosophy lecturer might use to talk about the Enlightenment. This kind of teaching act is not limited to the pure humanities or social sciences, marked by canons full of the works of 'dead white men' (Pett, 2015). Think of a Physics or Chemistry curriculum and try to name five great physicists or chemists whose work would be considered core to the field without thinking too hard or using Google Search. How many are women, black, queer, disabled? You may have to spend more than a few minutes on Google searching for those scholars. You would find them because they are there, but they may not be as easy to find as the Newtons, Einsteins, Turings, and so on. A productive educational question to consider is: Why? Tuhiwai Smith (2007) encourages us to ask this question a little more pointedly: Why is the world named and classified against these reference points (Descartes, male doctors, Great Britain, etc.) and not others (Yaqoob, female midwives, Uganda, etc.)? How do we question what counts as dominant knowledge without making it seem like an 'anything goes' affair, which causes anxiety for lecturers and curriculum designers who need to create structured access to knowledge and learning? Answering these questions will take more time and space than one chapter or one book can offer,

but the concepts associated with the EPD can help us start a process of digging into these important questions and concerns.

These concepts enable us to argue, looking at the deeper distributive logics of much of higher education around the world today and over the last several decades (or centuries), that the arena has been set up to distribute power and status to the knowledges, ways of knowing and ways of being that are considered legitimate by virtue of their socio-cultural and historical significance or positioning. These knowledges and related kinds of knowers are therefore deemed worthy of selection, recontextualization and, crucially, reproduction. But this is not an argument for the immutability of the distributive logics or any of the underlying logics and the actions they may lead to. The logics and their related actions are maintained in the interests of those in power, whoever they may be. But they are not set in stone. Those seeking to change the balance of power or reset the bar of legitimation can challenge them and change them, but they need to be able to see them and put a name to them first.

In the next section we are going to look at one detailed example of a social sciences curriculum organized analytically using the concepts associated with the EPD. As I did not design this curriculum but had access to it as a researcher and observer, I am placing knowledge and related ways of knowing and being into the fields using the underpinning logics implied in the curriculum documents, namely the study guide and module outline given to students. These documents tend to be created to capture the curriculum for students in an accessible and digestible format, and they reference the fields of production and reproduction on either side of the field of recontextualization.

As you work through this example, keep your role in mind: do you design and teach your own curricula, or do you teach curricula other people have designed? Do you design curricula for others to teach? Further, keep an open mind about critical questions that may be difficult to ask and answer, especially around the distributive logics underpinning your course or module context (see the conclusion of this chapter for some suggestions).

Applying the arena to a disciplinary curriculum

The example used here comes from a first year Political Science module organized around a general introduction to the sub-field of comparative politics. This is a good example because it offers many features that curriculum developers in other disciplines need to consider as they make choices and selections to move and transform knowledge between the three fields within the arena.

This module, at the time it was taught in 2015, was one semester long (around 14 weeks) and students attended three lectures and one tutorial per week. The objectives were to introduce students to foundational concepts and thinkers in this sub-field and to teach them the basics of comparing and contrasting different countries using a core concept, in this case, democracy. The outcomes of the module, which were stated as follows in the outline (2015), were to enable students to:

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- Describe what Comparative Politics is.
- Critically evaluate the field of Comparative Politics highlighting some of its strengths and weaknesses as a field of study.
- Critically discuss different ways of understanding democracy.
- Relate these different ways of understanding democracy to case studies.
- Know the basics about politics in the following four countries: South Africa, Brazil, India and Senegal.
- Be able to compare the four countries in relation to the way in which democracy is (or is not) realised in these four countries.

Using what you have learned about underlying organizing principles conceptualized as epistemic relations and social relations from Chapter 2, you may be able to work out what this discipline's specialization code is. Look at the verbs used in stating the outcomes of the course: '*critically* evaluate'; '*critically* discuss', 'relate' and 'compare'. To relate and compare requires that students develop both knowledge and judgement so that they can choose what needs to be compared and how to create a set of criteria that can be used to apply theory to practice in the case studies (point 4). What the module is teaching students is: how to apply theoretical knowledge to understanding the way parts of the political (and perhaps also social) world work; how to critically assess and evaluate sources of knowledge, including their prescribed readings and cases; and how to think creatively and sceptically about these cases through a comparative exercise. This is, then, a *knower code* (weaker epistemic relations and stronger social relations, or ER–, SR+). It is concerned with using knowledge of political science and the wider social and political world to enable students to become critical, analytical, creative, comparative thinkers and writers, able to work in these ways with any knowledge they may be presented with and asked to evaluate.

We could posit, then, that the *recontextualizing logic* would be aligned to this knower code, as the knowledge and allied ways of knowing, being and doing included in the curriculum would all need to be oriented towards developing (political science) knowers. The *evaluative logic*, too, would align with enabling and encouraging students to engage in classes, tutorials, written exercises and assessments to develop and signal their growing knower code orientation. However, it is not necessarily the case that all the knowledge in the field of production that can be drawn on to develop this curriculum will be influenced by only knower code epistemic logics. Logically, knowledge created and shared in the field of production could be informed by epistemic logics that span the specialization plane: think of newspaper articles, op-ed pieces, peer-reviewed articles and book chapters, stories about social, economic and political issues (protests, manifestos, etc.) from local political organizations, political parties, civil society, YouTube videos, and so on. It would be impossible for all of these different sources of knowledge to claim the same underlying *epistemic logic*.

However, in drawing knowledge from the field of production into the fields of recontextualization and reproduction – the curriculum and its associated teaching,

learning and assessment – we need to align the recontextualizing and evaluative logics with the underlying specialization code of the discipline so that students are actually learning what is valued by the discipline and are able to be recognized as successful knowers. The LCT model of the arena of education enables us to look carefully at the logics underpinning this example and other examples from our own contexts to ensure a critical form of alignment between what we teach, how and why, and the underlying specialization code students need to access and successfully master.

This course had as core knowledge both theory on comparative political studies and democracy as well as four country case studies, aspects of whose democracies were compared and contrasted: South Africa, Brazil, Senegal and India. As this was an introductory module in year 1 of undergraduate study and only one semester long, there was one core concept around which the learning and doing of comparative analysis was organized: democracy. This is clearly stated in the outline, although what is interesting is that the notion of what a democracy is and what this idea means theoretically and philosophically is debated rather than presented as a given. Students read ‘traditional’ western democratic theory (Joseph Schumpeter), but they also read an African perspective (Claude Ake) and a postcolonial perspective (Rita Abrahamsen) on democratic theory. Even the notion of what comparative politics is as a field of study and research is debated rather than prescribed, as students engage with Edward Said’s work alongside a ‘standard’ text to think about how most comparative political work may be unconsciously Eurocentric.

The module materials also indicated Freedom House briefings on each of the four case study countries, readings around racial and gender inequality by researchers working in South Africa and India respectively, and cases on participatory budgeting in Brazil and a youth-led political movement in Senegal. There was a Facebook page for the class on which students could post additional resources they came across and where the lecturer could post links to current news items, stories, op-ed pieces etc., to develop students’ general and political knowledge about the issues and cases examined in the course.

Thus, we could imagine the first two fields of production and recontextualization in this course as represented in Figure 3.2.

In the field of recontextualization, the lecturer grouped together different sources of knowledge from the field of production into three connected themes, keeping the aims of the module, the learning needs and level of the students, and the underlying knower code of the discipline in mind. These themes created an accessible way for students to access and make sense of the range of materials and the new conceptual and contextualized knowledge about democracy, Eurocentric comparative analysis, and the four country case studies. Theme 1, ‘On comparing’, drew two key texts from the field of production into conversation with one another and with the focus of the module: comparing different political units of analysis (leaders, systems, governments, policies, etc.). Below is an excerpt from the 2015 course outline:

Our two readings in this section explore what it means to make comparisons when studying politics. The first reading, by John McCormick, introduces the

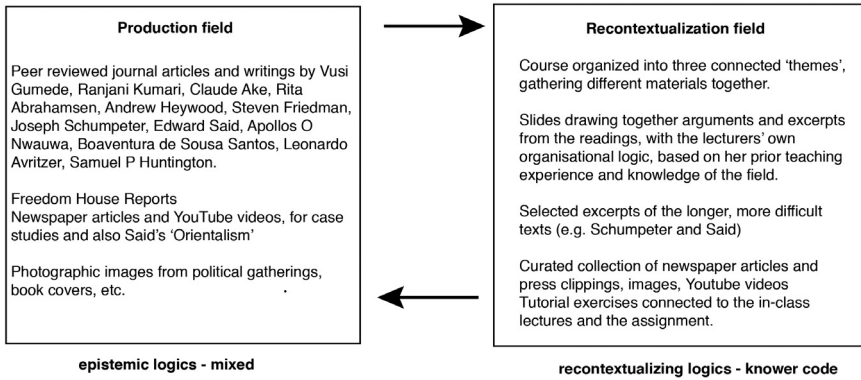


FIGURE 3.2 Imagined fields of production and recontextualization for comparative politics module

field of comparative politics. McCormick explains what we usually do in comparative politics and why we do it. This reading is quite straightforward: it is a textbook introduction to comparative politics.

Our second reading, by Edward Said, is not about comparative politics at all, and yet it is very relevant for comparative politics. In this reading, Edward Said argues that Western scholarship has presented non-Western peoples in a way that has helped maintain Western dominance. He shows that the way we produce knowledge about people affects power relationships. When relating this to comparative politics, we can note that when we make comparisons between countries, our comparisons might not be as neutral as they seem and may play a role in reproducing (or alternatively challenging) existing power relations.

This *choice* the lecturer made, to not just present the 'textbook' understanding of comparative politics but to use a different text from an allied field – philosophy – to challenge this understanding points to what is part of the gap between these two fields: ideology, conscious and unconscious bias, and values. These are, according to both Maton (2014) and Bernstein (2000), always part of the moves we make when we create a curriculum out of selected knowledge from the field of production. We make choices, which either preserve the status quo of the arena of education or challenge and change it.

The lecturer then moved on to Theme 2, 'On Democracy', where again she began with a relatively well-accepted definition and understanding of western democracy written by Joseph Schumpeter (of which the students are given a selected excerpt as it can be regarded as a dense text for first-years to read). But rather than just proceeding with this and other similar definitions and understandings, the lecturer again chose to bring different voices and different perspectives into conversation through her lectures and tutorials (field of reproduction). She chose to have Schumpeter converse with an African (Nigerian) political scientist and

philosopher, Claude Ake, and a Canadian postcolonial theorist, Rita Abrahamsen. Suggested additional readings encouraged students to add voices and perspectives from South American, South African and Indian academics. These choices and the mode of teaching the materials comparatively and critically modelled for students the essence of comparative political work, with a critical, perhaps ‘decolonial’ twist.

In essence, this lecturer used her lectures, curriculum materials and tutorials to repeatedly model an approach to comparative politics that was open to debate about Eurocentric thinking and theorizing, and open to a range of contending voices and positions. Both the recontextualizing and evaluative logics for this course are oriented to the underlying knower code, showing students what it is to think about and do comparative work, as well as introducing them to the kinds of critical, analytical, creative modes of being and thinking this discipline values. However, rather than only legitimating the accepted and legitimated definitions and understandings that tend to centre the Global North or perhaps more ‘traditional’ ways of working in this discipline, she opened up the space for legitimate participation to other positions and ways of knowing, being and doing. She did this with the case studies she chose, the readings selected for the course material pack, and the ways in which she encouraged students to see the different thinkers as debating positions in a wide and diverse field, rather than just asking them to accept these as given. Figure 3.3 represents what we could imagine as the whole arena for this course as part of the broader arena of Political Science in higher education.

This imagined representation of the arena, constructed out of the course outline and detailed field notes, shows the structure of one module as part of a wider arena of political science education which is most certainly marked by the kinds of struggles we looked at in the earlier parts of this chapter, specifically calls for decolonizing knowledge, teaching and assessment (see Hlatshwayo, 2019; Matthews, 2019). Into the gaps between the three fields, this lecturer inserted her critical agency, taking the western canon on comparative politics and opening it up to different kinds of (decolonial, feminist) knowledge, positions, ideologies, values and ways of claiming legitimacy. Thus, you could argue that the *distributive logic* here is ‘knowery’ too, in that it invites other forms of knowledge, knowing, doing and being into the curriculum and offers them legitimacy through their inclusion and positioning as well as through affirmation in class discussions, tutorials, and feedback on written assignments.

This is just one of probably many examples I could break down and discuss here. Space precludes this, unfortunately. But I am hoping that if you are reading this as a lecturer in the sciences or business and commerce fields you can begin to see where you could dig deeper into some of the choices that have gone into curricularizing and pedagogizing knowledge in the curriculum you teach. Perhaps there are ways in which you can see spaces that could be opened up for ‘conversations’ between thinkers, theories and so on around and about the knowledge that is or has been core to your discipline and to the process of students becoming specialized knowers within it.

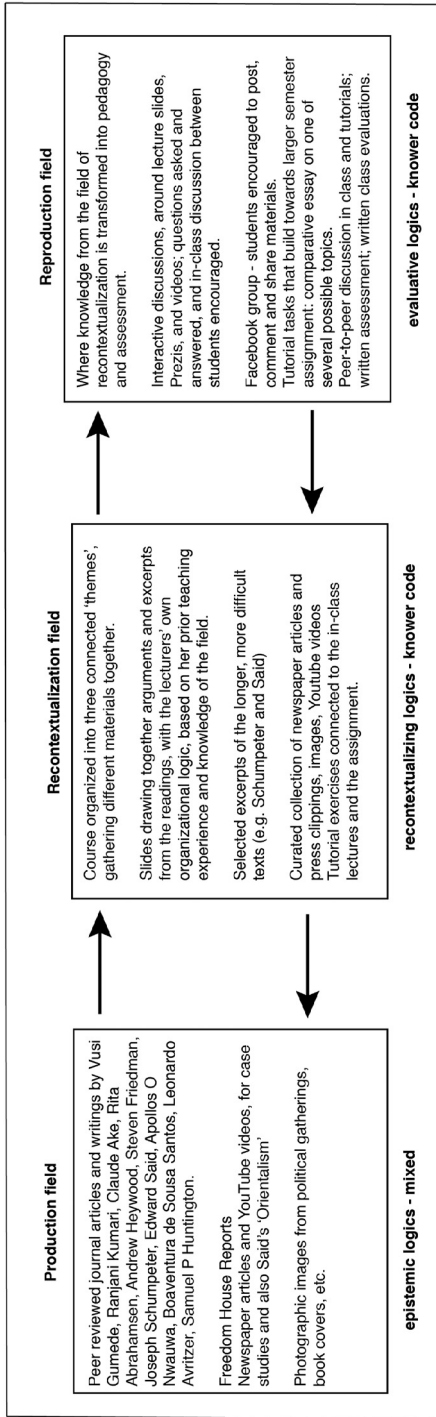


FIGURE 3.3 Whole EPD for the comparative politics module

Conclusion

Using LCT to look at the way in which this module has been designed enables us to see that there are indeed distinct differences between the three fields in which knowledge can be created, shared and re-created. Further, the design and teaching of a curriculum is driven by *choices* made by the designer or developer. These choices need to be carefully reflected on, as they are not neutral or immutable. They will inevitably reflect the big D Discourse of the discipline – its ways of knowing, doing, being, valuing, acting, behaving and so on (Gee, 2015). But, critically, the values, ideology and positioning of the curriculum developers or designers themselves – what they regard as legitimate and valued knowledge and ways of knowing, doing and being – will inform these choices. The choices that are made will include some knowers and exclude others, from simple aspects of pedagogy such as what kinds of examples to draw on to make a point in class (just men, only white theorists, only Eurocentric knowledge, etc.), to what texts, images, videos, etc. to include in a course material pack. These choices often also extend to how assessment is managed and what kinds of feedback students receive on their work.

This inclusion of some and exclusion of others is probably, on some levels, unavoidable, especially in higher education contexts marked by immense student and staff diversity. However, if a central goal of higher education is meaningful success for the majority of the students who choose to study at our universities and colleges, then we have to take very seriously calls for the curriculum to acknowledge and legitimate more diverse ways of being and knowing, and different, previously marginalized knowledges. In your context, this may mean grappling with the colonial nature of academic knowledge and giving greater space and legitimacy to Indigenous voices, ideas, theories, and persons, as well as tackling racism in the university more broadly. It may mean tackling inherently patriarchal ways of creating knowledge in the academy through including critical feminist knowledge and approaches to education. It may mean thinking carefully about assimilationist curriculum and pedagogy in a context where many students are refugees, migrants, international students with different formative ways of knowing, being and doing, and access to different bodies of knowledge that can challenge the ones presented in the current curriculum (see Manathunga, 2007 for a useful Australian example).

In examples more focused on the sciences, doing this work could mean interrogating anew how and when the knowledge you centre and focus on was created, as well as where, and by whom. For example, is there an alternative way of tracing explaining the development of aspirin (a common pain reliever) to pharmacology students? Instead of starting with Felix Bayer, a German chemist who treated his father's rheumatism with acetylsalicylic acid, aspirin's active ingredient, you could trace the discovery of this compound to Indigenous healers in Sumeria and Mesopotamia who found this in willow bark and commonly used it to treat mild pain and inflammation as far back as 4,000 years ago (Goldberg, 2009). This could open up a whole new space for linking Indigenous knowledge and practices with modern ones to enrich your students' understanding of the development of this

field. Another example would be the one mentioned in the study of caesarean sections in Obstetrics, in the first section of this chapter. These examples will not change how modern aspirin is made in laboratories or how modern c-section surgeries are performed by qualified doctors. But they will show students that the knowledge they are coming to know, use and build upon has followed multiple trajectories and histories and represents many more viewpoints, bodies and ways of thinking about the world than just those that dominate many current textbooks, course reading packs, and module curricula.

Working with curriculum and teaching more openly, critically and consciously in your context in ways that enable greater access and success may mean engaging intersectionally with more than one of these issues, or with additional issues not mentioned here. The insight offered in this chapter is not only about *what* you put into your curriculum – the materials you include in your curriculum and the ways in which the voices, knowledge, practices and so on reflected in these reference the dominant values of society or open up to different knowledges, values and practices. The insight offered here is also, crucially, about the *choices* we make in creating a curriculum and how the ways in which we select, organize and position knowledge shows students what is valued, given voice to, made powerful in higher education.

Through adding to our theoretical toolkit with the *epistemic–pedagogic device* (EPD) and the arena it creates, we are able to look at practices such as curriculum design and curriculum ‘alignment’ (Biggs & Tang, 2007) more critically, beyond what we see on the surface, as it were. We can now examine the different logics that underpin where we get *chosen* curriculum knowledge from, how we *actively* transform, group, sequence and connect it into a coherent curriculum, and how we teach, assess and evaluate the curriculum in practice. We can dig further down to think about how open the curriculum is to new and different voices, knowledges, positions and people and whether our curriculum preserves the status quo in the arena of struggles or works to change it. This tool, along with specialization codes (Chapter 2, this volume; Maton, 2014, pp. 23–42), gives academic teachers and curriculum developers significant power and agency to enable student success for all students, rather than only a few.

Questions for further reflection and action

In closing, these questions may help you begin a process of reflection and digging, by yourself or with colleagues you write curriculum and teach with. Keep in mind whether you are working within a knowledge code, knower code, relativist code or elite code and what your underlying aims and goals are aligned with your code orientation. If you have not yet done so, you may want to read Chapter 2.

Field of production

- Are you looking at the same kinds of readings, sources, etc., that have always been part of the reading list? In what ways could you open the possible field of

production you draw from to find articles, op-ed pieces, videos and blogposts that introduce new knowledges and perspectives?

- Are there more representative voices in your field, including those of women, Indigenous people, those working from alternative methodologies or theoretical perspectives, those working from non-European contexts, and so on? They may be hard to find, but perhaps reflect on whether you could begin to change this through making them more visible in your own research as well as in your curriculum.⁹ What would bringing these alternative voices and histories into your curriculum introduce or change?

Field of recontextualization

- How are you communicating the core knowledge and ways of knowing, doing and being to your students? Is it clear to them and to you what the *focus* and aims of the curriculum are, what the planned outcomes are? Do they ‘get’ what the *basis* of success is here? (see also Chapter 2)
- How is your curriculum organized to provide students with an accessible entry point into the key learning – the techniques, procedures, etc., or the ways of thinking and debating, etc.? What are your recontextualizing logics in designing this curriculum at this point in time?
- Who is represented in the kinds of examples, cases, stories and so on that you are building into your curriculum, seen as part of students’ overall degree or diploma programme learning? What teaching or tutorial activities invite different voices and perspectives into conversation with core knowledge and/or ways of knowing, doing and being?

Field of reproduction

- What is your preferred or dominant mode of teaching and assessing? Why do you prefer to do things like this? Considering your context, what changes could you make to open the pedagogic space to diverse student voices? Here, reflect on what you already do with student comments and questions in class, if you hold discussions and Q&A sessions. Are they just acknowledged and moved on from? Do they influence you in changing the course of the discussion or thinking about the impact of your course? How far are you going in aligning your practices in the field of production (where your research is published) and in the field of recontextualization with this field, where you are at the ‘coalface’ of teaching and learning? In other words, are you practising what you claim to practice and where might there be room for reflection and change?
- Are there other spaces you could create for students to become more involved in teaching, learning and assessment in your course, online through your Learning Management System or social media or in person in and outside of class? In what ways could you encourage and enable students to listen to one another as peers and challenge exclusion through peer-to-peer learning?

70 Can we change the university?

- What kinds of assessment criteria exist and what do they communicate in terms of the kinds of knowers and ways of knowing and being that are valued? For example, are students penalized heavily for using ‘non-standard’ English? Why? Is the focus on language and formatting errors, rather than on ideas and argument (e.g., in a knower code) or depth of the principled, procedural knowledge (e.g., in a knowledge code)? What might your approach to assessment be unconsciously (de)legitimizing?

This is a small, starter list that you can add to and further reflect on as you begin to think about your own curriculum. The next chapter will move on to consider teaching in the classroom and here I will be adding to the theoretical toolkit we have built so far with the second dimension of LCT used in the book: Semantics. This dimension is focused on processes of enabling cumulative, powerful forms of meaning-making and how we actually create the means for students to successfully make the meanings we need them to make to become successful, knowledgeable knowers.

Notes

- 1 See P. Fara (2016), The lost women of Enlightenment science, *New Scientist*, <https://www.newscientist.com/article/2090136-the-lost-women-of-enlightenment-science>, and Western Civilization II Guides (2013), Women during the Enlightenment and their contributions, <http://westerncivguides.umwblogs.org/2013/12/04/women-during-the-enlightenment-and-their-contributions/>.
- 2 In this instance we are referring specifically to rules of the game in a Bourdieusian sense, as the hidden rules that shape how universities function as arenas of struggle, who has power, why they have power, and how that power acts to structure and shape the arena and those within it. See Bourdieu speaking with Loïc Waquant for an accessible account of his thinking (Wacquant, 1989).
- 3 The Culture Trip (n.d.), The 14 oldest universities in the world, <https://theculturetrip.com/europe/italy/articles/the-12-oldest-universities-in-the-world/>
- 4 UCT Online (n.d.) 125 years of women on campus, <https://www.news.uct.ac.za/article/-2011-08-08-125-years-of-women-on-campus>
- 5 Please see Curtis, Reid & Jones (2014); Garuba (2015); Lamb (2015); Menon, (2015); NUSConnect (2016); Hlatshwayo & Fomunyam (2019) for more details on the different debates in these contexts.
- 6 Maton has developed the EPD through extending Basil Bernstein’s pedagogic device (see Bernstein, 2000). Chapter 2 of Bernstein’s book, *Pedagogy, Symbolic Control and Identity* could be a further resource here if you want to read deeper into the origins of this theoretical tool.
- 7 Here you may also use knowledge from the field of reproduction. As you can see in Figure 3.1, knowledge flows from the field of production towards the field of reproduction but also from the field of reproduction towards the field of production. We may use what we create and learn in the acts of teaching and evaluation to inform our choices in the field of recontextualization, as well as what has been created and shared in the field of production.
- 8 Field here is used quite specifically to refer to a broad set of practices that coalesce to create a distinctive ‘big D Discourse’ (Gee, 2015), with underpinning values, beliefs, ways of knowing, ways of doing, ways of being, and accepted bodies of knowledge. These will be contested, as not everyone who claims membership in the field will agree on what

these are, but they offer a base from which to engage in the creation, sharing, and debating of what counts as knowledge, and who the knowers are. You could think, for example, of the field of economics, or the field of medicine, or the field of conservation biology. Access to the field for students is not direct but is mediated through the curriculum and attendant teaching of different disciplines or subjects.

- 9 Interested readers could read the work of Hanelie Adendorff, Margaret Blackie, Marnel Mouton and Ilsa Rootman-Le Grange who have been working with LCT to decolonize and change biology and chemistry education in South Africa. There is also a panel discussion on decolonizing education that features inputs on doing this work from different disciplinary perspectives, including the sciences, featured on the LCT Centre's YouTube channel: https://www.youtube.com/watch?v=SK9eQ3Lk_9M

References

- ashe.ws. (n.d.) ASHE History. *Association for the Study of Higher Education*. <https://www.ashe.ws/ashehistory>.
- Bernstein, B. (2000). *Pedagogy, symbolic control and identity: Theory, research, critique* (revised edition). Lanham, MD: Rowman & Littlefield.
- Biggs, J., & Tang, C. (2007). *Teaching for quality learning at university* (3rd edition). Berkshire: Open University Press.
- Clarence, S. (2014). *Enabling cumulative knowledge-building through teaching: A Legitimation Code Theory analysis of pedagogic practice in Law and Political Science*. (Doctoral dissertation, Rhodes University, Makhanda, South Africa). Retrieved from: <https://core.ac.uk/download/pdf/145045245.pdf>.
- Connell, R. (2007). *Southern theory. The global dynamics of knowledge in social science*. Cambridge: Polity Press.
- Curtis, E., Reid, P., & Jones, R. (2014). Decolonising the academy: The process of re-presenting indigenous health in tertiary teaching and learning. In F. Cram, H. Phillips, P. Sauni & C. Tuagalu (Eds.), *Māori and Pasifika higher education horizons*. Diversity in Higher Education, Vol. 15 (pp. 147–165). Bingley, UK: Emerald Group Publishing Limited.
- Fara, P. (2016). The lost women of Enlightenment science. *New Scientist*. <https://www.newscientist.com/article/2090136-the-lost-women-of-enlightenment-science>.
- Fataar, A. (2019). *Towards a pathway to pursue knowledge in the South African higher education laboratory*. Plenary panel discussion at the 3rd Legitimation Code Theory Conference, Wits University, 1–5 July 2019. https://www.youtube.com/watch?v=SK9eQ3Lk_9M&t=1091s.
- Garuba, H. (2015). What is an African curriculum? *Mail & Guardian Online*. 17 April 2015. <http://mg.co.za/article/2015-04-17-what-is-an-african-curriculum>.
- Gee, J. P. (2015). *Social linguistics and literacies: Ideology in discourses* (5th edition). Abingdon: Routledge.
- Goldberg, D. (2009). Aspirin: Turn-of-the-Century Miracle Drug. *Science History Institute*. <https://www.sciencehistory.org/distillations/aspirin-turn-of-the-century-miracle-drug>.
- Gordon, G. (2013). The university: A critical comparison of three ideal types. *The Aims of Higher Education, Kagisano No. 9* (pp. 5–22). Pretoria: CHE.
- HELTASA. (n.d.) History. *Higher Education Learning and Teaching Association of Southern Africa*. <http://heltasa.org.za/about/history/>.
- Herbjørnsrud, D. (2017). The African Enlightenment. *Aeon*. <https://aeon.co/essays/yacob-and-ammo-africas-precursors-to-locke-hume-and-kant>.
- Hlatshwayo, M. N., & Fomunyam, K. G. (2019). Theorising the #MustFall student movements in contemporary South African Higher Education: A social justice perspective. *Journal of Student Affairs in Africa*, 7(1), 61–80.

- Hlatshwayo, M.N. (2019). *"I want them to be confident, to build an argument": An exploration of the structure of knowledge and knowers in Political Studies*. (Doctoral dissertation, Rhodes University, Makhanda, South Africa). Retrieved from: <http://hdl.handle.net/10962/92392>.
- Jacobs, C. (2019). Keynote address, Annual HELTASA Conference, 27–29 November 2019, Rhodes University, South Africa. <https://www.youtube.com/watch?v=BUXHGcOMc&t=2249s>.
- Jonsson, J. O., & Rudolphi, F. (2011). Weak performance – strong determination: School achievement and educational choice among children of immigrants in Sweden. *European Sociological Review*, 27(4), 487–508.
- Lamb, C. (2015). *(Neo)Liberal scripts: Settler colonialism and the British Columbia school curriculum*. (Masters thesis, Queen's University, Kingston, Canada). Retrieved from: <http://hdl.handle.net/1974/13792>.
- Maton, K. (2014). *Knowledge and knowers: Towards a realist theory of education*. London: Routledge.
- Matthews, S. (2019). Decolonising university curricula. Reflections on an institutional curriculum review process. In L. Quinn (Ed.), *Re-imagining curriculum: Spaces for disruption* (pp. 45–64). Stellenbosch: SUNPress.
- Menon, N. (2015). Why our universities are in ferment. *The Hindu*. <http://www.thehindu.com/todays-paper/tp-opinion/why-our-universities-are-in-ferment/article8238512.ece>.
- Moll, I. (2004). Curriculum responsiveness: The anatomy of a concept. In H. Griesel (Ed.), *Curriculum responsiveness: Case studies in higher education* (pp. 1–19). Pretoria: South African Universities Vice-Chancellors Association.
- NUSConnect. (2016). Why is my curriculum white? *NUSConnect*. <http://www.nusconnect.org.uk/articles/why-is-my-curriculum-white-decolonising-the-academy>.
- Pett, S. (2015). It's time to take the curriculum back from dead white men. *The Conversation*. <https://theconversation.com/its-time-to-take-the-curriculum-back-from-dead-white-men-40268>.
- Quinn, L., & Vorster, J-A. (2019). Why focus on “curriculum”? Why now? The role of academic development. In L. Quinn (Ed.), *Re-imagining curriculum: Spaces for disruption* (pp. 1–22). Stellenbosch: SUNPress.
- Shattock, M. (n.d.). The Society for Research into Higher Education and the changing world of British higher education: A study of SRHE over its first 25 years. *Society for Research into Higher Education*. <https://www.srhe.ac.uk/downloads/ShattockSRHEfirst25years.pdf>.
- Shay, S. (2015). Curriculum reform in higher education: A contested space. *Teaching in Higher Education*, 20(4), 431–441.
- The Culture Trip. (n.d.). The 14 oldest universities in the world. <https://theculturetrip.com/europe/italy/articles/the-12-oldest-universities-in-the-world/>.
- Tuhiwai Smith, L. (2007). *Decolonizing methodologies: Research and indigenous peoples*. London: Zed Books.
- UCT Online. (n.d.). 125 years of women on campus. *UCT News*. <https://www.news.uct.ac.za/article/-2011-08-08-125-years-of-women-on-campus>.
- U.S. National Library of Medicine. (n.d.). Caesarean section – A Brief History, Part 2. *National Institutes of Health*. <https://www.nlm.nih.gov/exhibition/cesarean/part2.html>.
- Volbrecht, T., & Boughey, C. (2004). Curriculum responsiveness from the margins? A reappraisal of academic development in South Africa. In H. Griesel (Ed.), *Curriculum responsiveness: Case studies in higher education* (pp. 57–80). Pretoria: South African Universities Vice-Chancellors Association.
- Wacquant, L. J. (1989). Towards a reflexive sociology: A workshop with Pierre Bourdieu. *Sociological Theory*, 7(1), 26–63.

- Western Civilization II Guides. (2013). Women during the Enlightenment and their contributions. <http://westerncivguides.umwblogs.org/2013/12/04/women-during-the-enlightenment-and-their-contributions/>.
- Wheelahan, L. (2010). *Why knowledge matters in curriculum: A social realist argument*. Abingdon: Routledge.
- Young, M. F. (2008). From constructivism to realism in the sociology of the curriculum. *Review of Research in Education*, 32(1), 1–28.

4

ENABLING CUMULATIVE LEARNING

Teaching students to surf waves of meaning

Introduction

A central outcome of higher education, regardless of discipline or type of degree or diploma, is an understanding that knowledge is layered, complex and connected. We build our understanding of the world and of ourselves on prior knowledge, actions, and learning. In some cases new knowledge and learning may replace older, more partial or incorrect knowledge, in other cases it will deepen and extend what and how we know. Regardless of how this process of knowledge-building occurs, all disciplines and fields have this connected or joined-up approach to learning at heart. This chapter picks up the conversation about student access and success here and looks at the role of pedagogy, or classroom teaching (and learning) in better enabling this kind of learning. Specifically, we are going to look more closely at what kinds of meanings we are teaching students to know and understand, and how to teach in ways that connect meanings within a discipline into a 'joined-up' conversation about knowledge and knowing.

Our starting point here is a long-held concern in higher education about students' struggles to 'transfer' knowledge as well as different skills, practices and dispositions (ways of doing and being) between subjects, years of study, assignments or tasks, and between university and the world of work or professional practice. A lack of meaningful connections made, or struggles to transfer knowledge within and between learning contexts, has been termed *segmented learning* (see Maton, 2009; 2013). In essence, segmented learning is learning that is broken into chunks or pieces that can remain disconnected from other pieces, rather than joined up with other knowledge to create larger or more coherent (sensible) meanings. This can be seen when students are able to learn and recall or use knowledge to write a test or an assignment, but then have seemingly 'forgotten' that knowledge when asked to recall it later in a different module or year of study. This 'bitty' learning may happen because the

student does not see where and how the pieces of knowledge they are learning connect with the larger whole of the curriculum or subject being studied, or how the curriculum knowledge connects with knowledge outside of the curriculum in a social or professional context. It may also happen when knowledge or meaning is tied to a specific context, problem or example and so does not appear to have application or meaning outside of that learning event. Knowledge is then locked into that specific context and is not clearly ‘transferable’ or applicable to different tasks or problems (Garcia-Martinez & Zingaro, 2011).

Lecturers expect students to recall and connect up prior and current learning – what is conceptualized in LCT as *cumulative learning* (Maton, 2009, 2013) – and worry when students are unable to do so. Yet, placing the responsibility largely onto students for successfully retaining, abstracting and connecting up knowledge across different contexts is problematic. If students are not given access to the ‘whole’ of meaning that is being taught in a module, subject, year level, degree or diploma programme, how will they be able to make sense of connections between different knowledges and meanings? As a curriculum designer and/or lecturer, you are better placed to seek and make sense of connections between different parts of the ‘whole’ that your students need to understand. Your students cannot yet see this as they have not had enough time or exposure to the ways of knowing, being and doing in your discipline. *How* and *why* we know, and not just what we know, is a crucial part of cumulative or connective learning.

However, it is one thing to see that there are connections and another to know how to teach students how to make these connections explicitly in their own learning, reading, writing and thinking. For most lecturers, curriculum designers and academic developers, the ways in which we do what we do and know what we know – the hows and whys of our learning – have become second nature almost. They are now tacit parts of who we are as academics and how we act, think, read, write, speak and so on. This means it is quite hard to see these parts of what we do and who we are as a novice or outsider would, which is where students stand when they arrive at university new to the disciplines and their particular big D Discourses (Gee, 2015).¹ This gap between who we are and what we know and can do, and who our students are and what they still need to learn to know, be and do can make explicitly teaching disciplinary ways of making connections difficult.

Teaching and learning, or pedagogy, has a significant role to play in how successfully students access and make sense of the curriculum knowledge and associated ways of knowing, being and doing. Successful teaching is about enabling *meaningful* learning, which means teaching students how to understand and create knowledge, thereby transforming themselves into capable knowers in their discipline. Meaningful learning is inextricably connected to disciplinary knowledge, and knowledge cannot be separated from the particularized ways in which we come to know, be, and act in our chosen disciplinary and related social and professional contexts. Meaningful teaching, then, has to enable students to learn both the ‘what’ of the discipline and the hows and whys that underpin this. In other words, students need to learn – as explicitly as they do

the knowledge – the ways of knowing, being, doing (writing, thinking, reading, acting, and so on), to achieve transformative, successful learning.

But this is not easy work and I am not going to suggest that it is. Academic lecturers working in universities are not, in the main, hired on the basis of their teaching competence and knowledge. Universities are sites of research and knowledge creation; most academic lecturers are hired because they are researchers who teach, rather than teachers who do research. Even if we are recognized as able teachers, most academics are primarily expected to conduct and publish research, both on their own and in collaboration with students and peers. In most universities, research efforts and excellence are more visibly and lucratively rewarded than the same work for teaching. This means, practically, that many academics are encouraged to focus their energy and effort on their research at the expense of learning to be a better teacher. This may make focusing on meaningful teaching seem like a big ask, given that the rewards for research productivity are so much more attractive and there is not always enough time or energy to be excellent at both.

Becoming and being a responsive, engaged lecturer at university does take an enormous amount of time and energy, both of which seem to be in limited supply for many academics around the world. It seems as if there is more and more to do just to get through the day, especially as university management structures further embrace corporatized approaches to governance that threatens the academic project in a range of ways, student bodies continue to grow in diversity and size, academic labour becomes increasingly casualized and precarious, and cuts to funding for research, teaching and student tuition make going to and teaching in a university a very tough business for too many students and lecturers. For many academic lecturers who find themselves in this kind of space, new learning around changing the curriculum and revitalizing teaching and assessment is both a mental and emotional challenge.

But this challenge must be met conscientiously if we are to create higher education that is socially just, equitable and meaningful for all students, not just those from home and school contexts that have prepared them well for the academic and social expectations of the university (see Case, 2013; McKenna, 2004). This is a concern at the heart of this book: making it possible for all lecturers to enact improved, reflexive and more engaged teaching. The focus of this chapter is how to create pedagogy or teaching and learning practice that shows students in accessible, discipline-specific ways how knowledge is cumulatively connected up into networks or ‘wholes’ of meaning. This kind of teaching shows students how they can make sense of knowledge and related ways of knowing, being and doing such that they can engage in deeper, transformative learning.

Making meaning across the disciplines

Lecturers do not impart knowledge as from experts to novices (see also Jacobs, 2019; Quinn & Vorster, 2019), nor are they mere facilitators of students’ own self-directed knowledge acquisition processes (see Jacobs, 2019; Kirschner, Sweller &

Clark, 2006). Academic lecturers working within the different disciplines that make up a university have expertise by virtue of specializing in the discipline in which they teach their subjects and modules. You have expertise and insight into the knowledge that is legitimated in your discipline, as well as in what it means to embody being a knower; your students are looking to you to share this with them and guide them that they may too become experts in time.

What lecturers are doing, then, is helping students to understand and appreciate not just knowledge, but what that knowledge *means*, both within the discipline itself and also within a broader social, political, and professional context. We need to use the act of teaching to show students in visible, relevant ways what the knowledge in the curriculum means through drawing links between different aspects of knowledge, and between curriculum knowledge and the world beyond the university. Further, we need to open up knowledge to debate and contestation and show students how knowledge is deeply intertwined with the ‘big D Discourse’ of the discipline: ‘... [the] ways of behaving, interacting, valuing, thinking, believing, speaking and, often, reading and writing that are accepted as instantiations of particular identities’ (Gee, 2015, p. 4).

The identities here – the characterization of being knowers – would be those constructed by members of a disciplinary community of practice and research – historians, anthropologists, feminist scholars, mathematicians, engineers, chemists, and so on. Within these communities there will be different identities, more and less specialized, that shape the enactment of the ‘big D Discourse’ and how it is communicated through the curriculum, teaching and assessment.

Through engaging in teaching and learning activities and through interacting with their lecturers, their peers, authors of key texts and perhaps even professionals (e.g., through work–study or internship placements), students-as-knowers slowly become members of their disciplines’ communities of practice. Crucially, this becoming is not just enabled by filling their heads with information – lists of facts, principles, rules, procedures, names and dates, and so on – but instead requires them to take the knowledge in the curriculum, make sense of it within a particular context, place and time, and use it for particular means and ends. For example, understanding the value of objectivity in science and applying this understanding to a conscious and careful process of developing a reliable experiment, or performing a replicable procedure in the lab. Unless the knowledge students are learning has meaning, purpose and a place in their growing frame of reference, they are unlikely to see that it needs to be retained, used and built on *cumulatively* with new knowledge as they move through their studies.

An important tool in meaning-making that many different disciplinary lecturers or teachers make use of is inquiry (Healey, 2005). The essence of an ‘inquiry-focused’ approach to teaching and learning is that students actively construct meaning and knowledge by engaging in forms of research. Inquiry-based learning and teaching, focused as it is on students constructing knowledge rather than just retaining and recalling it, typically involves applied learning. Effective inquiry-based learning cannot be either purely theoretical or purely contextual; it must be both. Students

need to learn to use that which counts as theoretical or principled knowledge in the discipline to solve problems that matter within a particular context, real or fictional. For example, an inquiry-focused project on what makes democracy effective in the Global South may engage with democratic theory and governance theory to look at an issue that would test and explore the value of this theory in gaining understanding of a current issue. For example, the electoral campaigns leading up to the 2018 presidential elections in Brazil, in which the winner, Jair Bolsonaro, used social media to influence voters.² A similarly inquiry-focused project in the engineering sciences might investigate the creation of effective designs for building a bridge. Students would likely need to use conceptual knowledge on the properties of different materials and how they work (e.g., metals) along with contextual knowledge about, for example, where the bridge needs to be built, for whom and for what purpose (footbridge, light vehicles only, etc.) to create their designs and assess their potential efficacy.

Applied or inquiry-focused teaching and learning, which effectively connects what we might broadly call ‘theory’ with ‘application’, is a common approach across the disciplines in higher education. Even in disciplines that seem quite abstracted from contemporary lived reality, such as Classics or Philosophy, use real people, problems, scenarios and so on to make the knowledge that is abstracted from reality both sensible and meaningful in place and time. In many of the sciences, too, such as Chemistry and Biology, there are theoretical or conceptual principles and ways of seeing the world underpinning how scientists observe and make knowledge about the natural world in practical, applied ways (e.g., molecular orbital theory or cell theory). Think, for example, of the Periodic Table of Elements. This is a form of theoretical or abstracted knowledge; each element has a set of characteristics (atomic weight, properties, etc.), which can be used to predict how elements will behave when they are synthesized, or perhaps to predict their behaviour in particular reactions (see Blackie, 2014). Sometimes what counts as theory in a discipline may seem hidden from obvious view, but all disciplines have some form of knowledge that is abstracted from a specific, defined context, problem or application, which can be used to explain the natural or social world, regardless of what your discipline calls this knowledge.

The abstract or non-context-bound meanings of this knowledge, separable from specific contexts or problems, gives this form of knowledge – what I will call *theory* in this chapter for reasons of simplicity – its power. It can be pulled down from this abstracted space into research or inquiry to provide an explanation of why things are the way they are, why a practice or procedure should work the way it does, and so on. Theorized explanations and accounts are infused with more than just common sense; they present ‘thicker’, more generalized descriptions (Maton, 2006) of how and why the world works in certain ways, why certain procedures and techniques are more useful than others, why people or synthetic compounds may act the way they do, and so on. These thick descriptions, more powerfully than common-sense or purely contextual accounts, can enable a deeper understanding of the world. In many cases these understandings or meanings can be used within and across different contexts to create *cumulative* or ‘joined up’ meanings, increasing their explanatory power (Maton, 2014).

But to enable this kind of understanding and meaning-making, theory cannot remain abstracted and free from connection to real contexts, people and problems. It needs to be applied to *specific* contexts, problems and questions, becoming meaningful to those using it in this process. A great deal of teaching, though, does not overtly show students how to successfully apply theoretical knowledge to different kinds of disciplinary problems and questions in ways that build their understanding of theory and the different forms of application. In other words, while most university teaching is concerned with using ‘theory’ in forms of ‘application’, it does not necessarily do so in ways that enable *cumulative learning* (Clarence, 2017; Macnaught, 2020; Macnaught, et al., 2013; Maton, 2009). Key to the act of connection and meaning-making is linking what counts as ‘theory’ with what counts as appropriate forms of ‘application’ or ‘practice’. To do this clearly, each discipline needs to define what counts as theoretical or principled knowledge and what counts as context, application or practice.

A few examples to think about in relation to ‘application’ of ‘theory’

Using your own experience in teaching and lecturing thus far, pause here and consider these examples, imagining you are the lecturer here and these are your students. Think about an example or two from your own discipline to add to these.

LAW

You have taught your students a legal concept, such as ‘domicile’, and accompanying principled knowledge from statutory and common law on marriage, divorce and co-habitation. They have spent many years in a school system that tends to encourage recall and reproduction of knowledge, so they learn these concepts and principles carefully. You then set a test where you offer a scenario of a couple residing in France yet married in London who now plan to divorce. They need to petition a court of the country in which they are domiciled, so where should the divorce petition be lodged: London or France? Why? How should they file?

Questions to think about: How might students who have studied and memorized the concepts and principles (theory) tackle this application? What cues or instruction would you give on how to break this kind of task down and write an appropriate or expected response?

PHYSIOTHERAPY

You show your students examples of basic muscle strain injuries in the lower back requiring treatment and then introduce the treatment principles, drawing on their knowledge of human anatomy. You set a practical test where the injury

changes – now it is a shoulder strain injury – but the principles for treatment are much the same, requiring only small adjustments.

Questions to think about: What happens? Do the students typically answer the question as desired, adjusting their knowledge to the new injury and applying the correct treatment? Or might they turn to reciting the learned back injury treatment, unable to make adjustments for a different injury site and anatomy? Why might this be the case?

ENGLISH STUDIES

Your students are asked to read and study a set text, Shakespeare's *Twelfth Night*. They have supplementary texts that explain the significance of aspects of the play as well as the plot itself. Based on the reading of the play and these additional texts you set an essay question in which students are given an extract from the play to analyze and discuss in relation to the whole play. Key to a successful answer is their ability to show how this extract is connected to the rest of the play and extract themes or insights from the extract that provide evidence for the meanings they have chosen to highlight and discuss.

Questions to think about: How might students typically respond to such a question, where the application seems abstract rather than connected to 'real' problems, such as a patient with back pain or a client with a legal problem? In similar instances, what do students typically do: successfully discuss, interpret and connect the extract to the rest of the play and the topical issue of the essay, or narrate back to you the plot of the play, with little or no clear analysis or critical insight? Why might they do this?

As you are thinking through these questions, you may consider that many students may seem to be stuck somewhere in an 'either/or' space. *Either* they are able to recall the theoretical knowledge of 'domicile' or 'muscle strain', or interpret Shakespeare's meanings in abstracted terms, but are unable to effectively use this knowledge to solve or analyze the set issue or problem. *Or*, on the contrary, they are able to address the problem but with partial recourse to theory, perhaps relying on common-sense knowledge rather than offering an appropriate or expected application of the theory. If this seems familiar, it may be a reasonable conclusion to draw that there is a gap between *what students know* and what they *are able to do* with what they know.

A range of modules will be required to build a programme of study that can offer students opportunities to access and learn about all the parts of your discipline's 'whole' of required knowledge and related ways of knowing, being and doing within the average period allocated for undergraduate study. For example, you may have modules that are more specifically focused on theoretical or

conceptual learning and application of this knowledge to hypothetical problems, alongside more practical modules that bring this conceptual knowledge into closer contact with ‘real-world’ problems or tasks that mimic the professional world more closely. The point is not to make all the parts of the degree programme do the same kinds of teaching and learning; this would not be practicable, or useful to students, lecturers or the professional world. More useful, rather, is to consider anew how the parts constitute the whole, what the whole is trying to achieve in terms of educating future contributors to both work and civic life, and how students can be better enabled to understand the point and aim of each course and module in relation to the others. This is where gaps tend to become most visible: when students move between different kinds of tasks or assignments; between modules; between year levels in a programme; and between university and the workplace.

This chapter will use a Legitimation Code Theory (LCT) tool from the dimension of Semantics to help illuminate and bridge typical gaps in higher education. As a brief reminder, LCT is a sociological framework that theorizes practices, fields and dispositions as what Maton (2000; 2014) terms ‘languages of legitimation’ captured as *legitimation codes*. These codes capture the underlying organizing principles that shape what meanings, practices, actors and so on are valued and legitimated within a practice, a discipline, a field. There are three active dimensions in the LCT framework. This book has so far introduced Specialization (Chapters 2 and 3), and will now introduce and use Semantics. Semantics is concerned with the processes of meaning-making, particularly with enabling *cumulative learning* and meanings through effective learning and teaching (see Maton 2009; 2013). The next section will explain Semantics, specifically the two concepts that come together to create this dimension’s legitimation codes and the semantic wave and variations of this. I will then apply this theorized language of analysis to illustrative data to show how you can use this theory to analyze classroom teaching.

The ability to build knowledge cumulatively is not necessarily something students will acquire without conscious effort on the part of pedagogy. Some students arguably make the necessary moves between theory and application more successfully than others, in good part for reasons discussed in Chapter 1 around prior education, preparedness, and their current support environments. But part of developing students’ capacity to understand the nature of and make these shifts in their disciplinary context is directly related to teaching as well as assessment (see also Chapters 5 and 6). If we do not pay attention to this in creating teaching environments and activities, we may leave too many students inadequately prepared for successful transitions into the world of work, whether in a specific profession or a less clearly defined professional context. We may also keep in place inequities of success, in that students with the ‘right’ kinds of prior knowledge and support will keep doing well and students with less of these inputs will founder (see Case, et al., 2018).

Making semantic waves of learning

A useful way of visualizing connections between parts of a curriculum, enacted through teaching, is to picture a wave in the ocean rolling up, breaking and then rolling back out to sea again, over and over. Imagine you are teaching your students how to surf these waves (Clarence, 2017). A fairly common-sense way of approaching learning to do anything – here I will continue the surfing metaphor – is to start small and simple with the basics and then increase the complexity of the problems, building on and developing knowledge and application of these. In surfing, you start with a large board on small waves, guided by an ever-present coach. You paddle madly, get pushed by your coach onto a few waves, fall off your board and get back up with your coach's encouragement and advice as you keep trying to get it right. You even catch a few! When you are more confident and a bit fitter, the coach takes you further out to bigger waves and teaches you to catch these, increasing your ability to choose good waves and ride them with greater skill and stamina. As your skill, knowledge of the waves, and confidence grows you become less reliant on your coach and can go surfing with friends, working out together how to have the best session possible with the knowledge and practice you have accumulated. Eventually, you can do all of this on your own and even teach others the basics so that they can become surfers too.

Applied to learning and teaching, the first year usually commences with foundational knowledge and related ways of knowing, doing and being – the building blocks for later learning. Students should be able, through assessment and classwork, to practice using this foundational or initial knowledge iteratively until they are confident and relatively able. They need feedback and ongoing input and advice from their lecturers and tutors to help them grow in both ability and confidence. They can then progress to the next level of study where the knowledge is more complex and the related ways of knowing, doing and being are extended and developed. But task by task, students should become increasingly adept and confident in their knowledge and ability to put that knowledge to work in appropriate ways. As they do so, they will become less reliant on the input and expertise of their tutors and lecturers and may use this to supplement learning from and with peers, disciplinary texts of various types, and coursework materials. Many students will, eventually, be able to teach and mentor others who are learning the discipline and field, as tutors or peer facilitators and later as professional colleagues.

We are going to use Semantics in this chapter to conceptualize knowledge and knowing as waves of meaning that can be created and learned, and teaching as showing students how to become fit, able and confident surfers of the waves of meaning that constitute disciplinary learning in particular ways. The Semantics tool we are going to use in this chapter is 'semantic profiling' and the main form of the semantic profile we will be looking at is the 'semantic wave' (see Maton, 2009; 2013; 2020). There are other kinds of profiles, as you will see going forward, but the semantic wave is at the core of cumulative teaching and learning and meaning-making work. There are two concepts in Semantics that are used to create the

language of description and analysis for cumulative meaning-making and learning. These organizing principles combine in varying relative strengths and weaknesses to create different kinds of semantic profiles. They are termed *semantic gravity* (SG) and *semantic density* (SD) (Maton, 2009; 2013; 2014; 2020).

Semantic gravity (SG) refers to the relative context-dependence of meanings (Maton, 2014, pp. 106–124). To illustrate this, I am going to use a concept that would possibly have several different meanings across different disciplines in the social and natural sciences: ‘class’. This concept, on its own, means very little as an abstracted notion. It is, if you like, floating free of specific meanings and applications, above all of the contexts, problems or tasks to which students could be asked to apply it in meaning-making or knowledge work. It has, because of this ‘free-floating nature’, *weaker* semantic gravity (which is annotated as ‘SG–’) (see Figure 4.1, below). This means more abstracted, theoretical or principled meanings that can be applied relative to different contexts, problems or empirical questions. Meanings with *stronger* semantic gravity (or ‘SG+’), conversely, have meaning that is more dependent on an application or context; their meaning is bound to that context. Semantic gravity (SG) and semantic density (SD) can be stronger or weaker, denoted by the + and – symbols, e.g., SG+, SG–. But both semantic gravity and semantic density can also be strengthened and weakened in moves up and down semantic profiles, which is denoted by the up and down arrows, e.g., SG↑; SG↓.

Look at the imagined application in Figure 4.1 of the concept of class, which we can here define very broadly, as ‘[A] set or category of things having some property or attribute in common and differentiated from others by kind, type, or quality’.³ This very general definition could be taken ‘down’ to a range of different problems or cases to provide deeper explanation or analysis in both the natural and social sciences, but it would need to be more carefully and contextually defined first. Here, we are imagining that a History lecturer is using this concept, initially, to analyze the organization of British society pre- and post-1800 (around the height of the First Industrial Revolution).

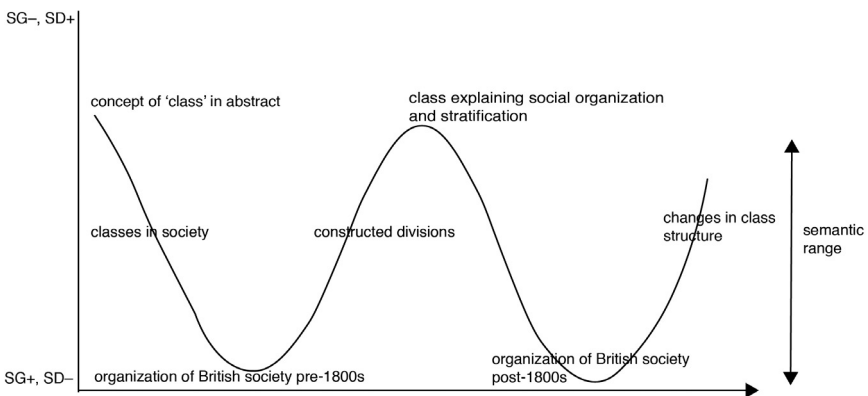


FIGURE 4.1 Imagined semantic waves for applying the concept ‘class’

Imagine the lecturer begins with this very generalized definition of class, moving down a possible wave to define it in relation to society and social differentiation more generally. This first move has already strengthened the semantic gravity by creating a sub-concept of social class (SG↑), moving closer to an example or context. The lecturer moves further down the initial part of this wave to explain social class through applying it an example, the organization of British society pre-1800, and in doing so she connects it to a specific context and attaches meaning relative to that context. It now has stronger semantic gravity (SG+). But she does not want students to understand social class as only describing this society at this point in time so she ‘waves’ back up to explain that these divisions are not naturally occurring; people in different places and times construct meanings of ‘class’ for different purposes. She has now weakened the semantic gravity by adding the concept of class as a human construct (SG↓). She then waves up further to an even more theoretical explanation of how these constructions serve the purpose of stratifying and organizing societies in different ways, giving the concept of social class even weaker semantic gravity (SG–).

But these stratifications can change as they are challenged over time by humans or by events, such as the First Industrial Revolution. She uses this event to create another connected wave, through progressively strengthening and then weakening the semantic gravity by shifting down to an additional example – changes in social organization and mobility in Britain after 1800 – and shifting up again to build on the concept of social class and what ‘attributes’ or ‘qualities’ (see original definition above) people may use to group some with higher status together and group others together into lower status groups. She could add additional wave cycles using many other examples, such as the caste system in India or changes in social organization pre- and post-Apartheid in South Africa, drawing together these different examples to build a denser, diverse set of meanings of the concept of ‘class’ in relation to societal organizations over time. The wave in Figure 4.1 could then become more complex and involve more up and down shifts through connecting theory and application to create meanings and knowledge.

The cumulative building and deepening of meaning connects us to the other of the two concepts that enable the creation of semantic profiles: *semantic density* (SD). Like semantic gravity, semantic density can be relatively weaker and stronger, depending on how complex are the meanings condensed into the concept/term/symbol/gesture/etc., you are working with (see Maton, 2013; 2014, pp. 125–144). A concept (such as ‘class’) will have stronger semantic density (SD+) at points where it has several meanings packed or condensed into it. In Figure 4.1 this will be where the concept is abstracted from one context or one example and has several potential meanings that need to be ‘unpacked’ or examined for the concept to make sense in relation to a problem or context students can recognize. In applications like the one reflected in this example, semantic density tends to weaken as the semantic wave shifts ‘down’ towards one clear example or application to which the denser concept can be applied and made sense of, from SD+ to SD–. As the concept is then ‘repacked’ with meanings, through the History lecturer shifting up the wave again,

building through application the varied ways in which ‘social class’ can be understood, it increases in semantic density (from SD– to SD+).

A similar process of thinking through the creation of a semantic wave could be applied to thinking of ‘class’ as it might have meaning in the biological sciences. Here, ‘class’ would be defined in relation to organizing and categorizing the natural world, and could be defined rather more simply as ‘A group or set (of things or entities) with common characteristics, attributes, qualities or traits’, or more specifically as, ‘A taxonomic group comprised of organisms that share a common attribute. It is further divided into one or more orders’.⁴ This concept would need to be connected to other related concepts, such as Phylum and Order, and examples used to show how these concepts work together to create a system of organization and categorization that is stable and foundational in this field of study. For example, the class ‘Mammalia’ is part of the Phylum Chordata and comprises Orders such as Carnivora (e.g., dogs) and Primates (e.g., Apes).

Figure 4.1 presents a wave created out of the History example. It presents a rather ideal, than real, semantic wave in the sense that this is not meant to be the version of a wave that you need to match your own teaching with. If you go back to the surfing metaphor that opened this section, in teaching across year levels with new as well as familiar material, you will be creating semantic profiles of many different shapes and sizes relative to your students’ learning needs and prior knowledge, as well as the module aims and outcomes. You would not expect students to surf ‘steep waves’ with potentially dense and complex concepts and contextual applications in the first year, for example, but it may be reasonable to expect this of them in senior undergraduate or postgraduate study. The caveat here, linked to the focus of this chapter, is that students need to be explicitly shown how to surf the waves of meaning-making and knowledge-building at different levels and in different modules. Pushing them into new knowledge and unseen examples and applications, with little overt explanation of how your discipline builds knowledge and creates meanings, is unlikely to result in success for the majority of your students.

To sum up so far, semantic waves are created through shifts from unpacking of abstracted/principled/theoretical meanings (SG–, SD+) through explanation (SG↑, SD↓) and exemplification or application (SG+, SD–), through to repacking as the abstracted meaning is further added to or condensed in the upwards part of the wave (SG↓, SD↑). However, this process can also happen in reverse, beginning with an application or contextualized meaning and shifting up to extract the abstracted conceptual meaning before shifting down to apply this to a different application and so on. Whether you decide to begin from a higher point of entry on the semantic wave or reverse this and begin from a lower entry point, the point is to wave rather than to jump between different kinds of meaning in seemingly disconnected ways, leaving students in the dark as to possible connections and the overall purpose of the learning they are expected to do. The waves you begin with may be smaller or shallower, slowly becoming steeper as students develop knowledge and the ability to work with that knowledge in appropriate ways. This growth is the depth or steepness of the waves and is termed ‘semantic range’ (see Figure 4.1).

The semantic range indicates the relative complexity of the task: a larger semantic range indicates more complex unpacking, exemplification and then repacking of meanings (concepts, symbols, gestures, etc.). A smaller semantic range indicates a smaller or less complex task and thus a relatively easier or quicker unpacking, exemplification/explanation and repacking process. Ideally, this should shift as learning becomes more challenging and more is required of students through teaching and learning activities and tasks. You would likely want to start with simpler waves, perhaps beginning from examples students may recognize to extract principled or abstracted knowledge, and then connect this to further examples or application tasks. Or begin with a conceptual meaning and through careful explanations and multiple explicit connections to examples or application tasks, show students how that concept is used in the discipline or subject to make relevant meanings or knowledge (such as the example in Figure 4.1). Key, though, is to extend the semantic range gradually with explicit steps. Otherwise, students may experience rapid ascents or descents or jumps between points that confuse them because they cannot see the way the different meanings are connected. Getting stuck may make it seem as if they have not grasped the current learning or are unable to connect it to prior learning (hence a judgement of poor ability to ‘transfer’ knowledge and knowing).

There are two further semantic profiles to discuss before we look at data, which are important because they represent enactments of teaching that can lead to students getting stuck in their learning. The first is ‘escalators’ (Figure 4.2) and the second is ‘flatlines’ (Figure 4.3).

An escalator in Semantics means either an upwards wave from application to theory broken off at the top of the wave (an up escalator), or a downwards wave from theory to its application broken off at the bottom (a down escalator) (see also Clarence, 2017; Macnaught, et al., 2013). Applying this to teaching and learning, this may represent a situation where students are given different versions of a concept

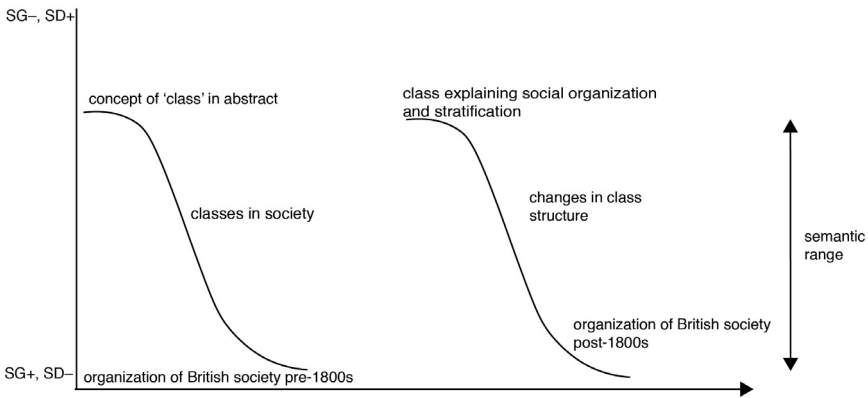


FIGURE 4.2 Imagined down escalators for the ‘class’ example

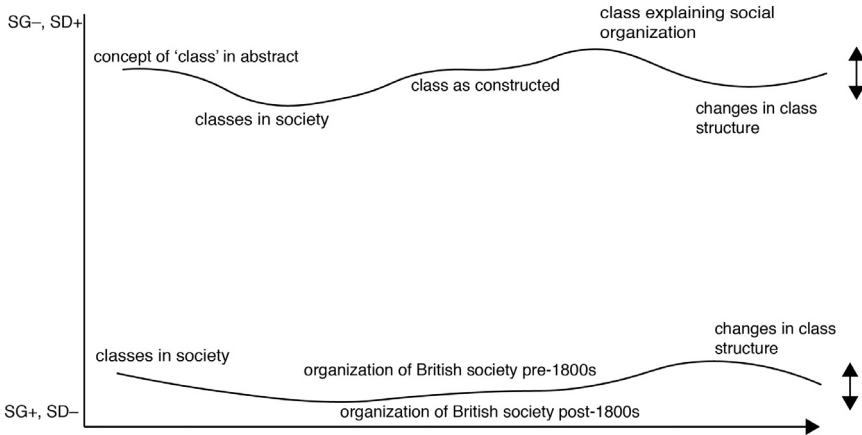


FIGURE 4.3 High and low semantic flatlines for the 'class' example

or theory and an application or example without the explicit means to connect different concepts to one another, or to connect one concept to a range of different applications. Students' ability to make important connections in their learning through the middle parts of the wave where semantic gravity and semantic density are incrementally strengthened and weakened (indicated by the \uparrow/\downarrow arrows) is undermined. We will see an example of this in the next section where we analyze data.

Figure 4.3 represents what is conceptualized in LCT as 'flatlines'. These can be higher, where they evidence weaker semantic gravity and stronger semantic density (SG-, SD+) or where meanings are implied as being only or purely context-independent and are relatively dense. They can also be lower, where they have stronger semantic gravity and weaker semantic density (SG+, SD-), that is, meanings that are context-dependent, less dense, and difficult to make sense of outside of these contexts. In this example, if 'class' is taught in a higher semantic flatline students may believe they have to learn the theory well and be able to recall it when asked in order to succeed, but may struggle to adapt and apply it to different questions or tasks. Conversely, if taught as a lower semantic flatline, students may be able to apply their understanding of social class to the example they have learned as the 'anchor' for this concept, yet may struggle to apply the concept of social class or class more generally to problems or situations other than British society before and after the Industrial Revolution. Again, the strengthening of students' ability to select, use and build on existing knowledge is compromised.

In the next section we are going to look at three examples from classroom teaching taken from transcripts of field notes and videos created for a larger study (see Clarence, 2014). This data will enable us to use the semantic wave to analyze a real teaching situation as opposed to heuristic or imagined examples, and will hopefully enable you to draw connections between your own experiences of teaching and the examples and analyses offered.

Analyzing classroom teaching with semantic profiling

The data here is drawn from observations in a first year class, with around 500 students and two lecturers co-teaching the module in the year in which the study was conducted. The subject is Law of Persons within the sub-discipline of Private Law. The lecturers' aims in this module were to introduce students to the foundations of Private Law and to enable them to begin applying principled legal knowledge – from statutory, common and Indigenous sources of law as well as case law – to basic or relatively simple 'scenarios' or legal problems. The module is thus experienced by students as quite theoretical: there is a strong emphasis on foundational knowledge such as different legal definitions of birth; principles related to legal rights and responsibilities and legal personhood; and multiple ways in which one can become and cease to be a legal person through claiming and forfeiting one's rights. There were many examples offered throughout the module, usually as in-class exercises that modelled potential test and exam questions, although the answers were often presented with minimal student interaction as the class was so large. This further emphasized the more theoretical nature of the module.

The examples in this section of the chapter have been selected because they illustrate different forms of semantic profiles, with varied implications for students' cumulative meaning-making and learning. The first example comes from a lecture relatively early in the module, where students are learning about the four different kinds of rights a legal person can claim (they have already learned the basics of legal subjectivity or how one becomes a legal person). This example comes from field notes written in detail during the lecture. The text in quotation marks is a verbatim quotation of the lecturer's words, whereas the non-quoted text is a detailed summary of the teaching. I have added italics here to highlight the four rights so that you can follow the example.

There are four categories of rights that legal subjects can have. First there are *corporeal rights*. 'When a subject has ownership over a corporeal object he has a real right. Who is that right enforceable against?' She uses as an example her bottle of water, and tells the students: 'you have to get your own, this is mine, you have to respect my real right to own my water bottle'. She then moves on to the second category of *personal rights*. She starts with a common example, hiring a babysitter to look after her kids: if the babysitter performs her duties well, she can expect to be paid, and payment is a personal right. She moves on to the next category, *personality property* – 'an aspect, for example, your dignity or honour ... that attaches to who you are'. She gives an example of being spied on by a peeping Tom – this may infringe on her dignity more than it might for her neighbour. She can thus enforce her personality right against the peeper. She then introduces the 4th category, rights to *immaterial or intellectual property* – 'an intangible product of the human mind'. For example, ideas: the idea a person has is a legal object, rather than what the idea becomes, and these rights are enforceable against everyone. She then puts up a table listing all four categories of rights, and their definitions along with examples on a slide, to summarise what she has just described in detail.

Taught in this way, it sounds and looks like a list (see Figure 4.4). The summary table further emphasized this. Using semantic profiling, we can see that this list would comprise a mix of up and down escalators. For the first, third and fourth rights, she begins with the conceptual notion of the right, unpacks through explanation and an example, but does not repack and connect these together within a larger example, case or theoretical scenario. With the second right, if you look carefully, she begins with an example (the babysitter being paid for her services) and then names this as a personal right. This example is just a snapshot of one moment in a whole semester of teaching and it may be the case that this lecturer came back to these four rights in a different way later on, showing how these rights can be enforced as part of one's legal subjectivity, for example. But in this moment students are hearing a list and may well try to memorize it as one in the hope that a question in a test will ask them for this knowledge. Even if it is built back into a bigger set of meanings later, some students may well retain it in this list form.

Students tend to be quite good at learning lists, definitions, key terms and so on. They are well practiced at having and reproducing knowledge from primary and secondary schooling. What many students are less experienced at is putting this kind of knowledge to work in solving particular problems and looking for connections between different kinds of meanings to create joined-up understandings within, and also perhaps across, subjects and their disciplines (e.g., connecting law with ethics or with business and finance). Higher education curriculum and pedagogy needs to enable a shift from knowing isolated pieces of knowledge to using knowledge to solve problems, create meaning, and build increasingly complex networks of knowledge and related ways of knowing, being and doing (see also Wheelahan, 2010; Maton, 2014). This, in a nutshell, is the essence of cumulative learning.

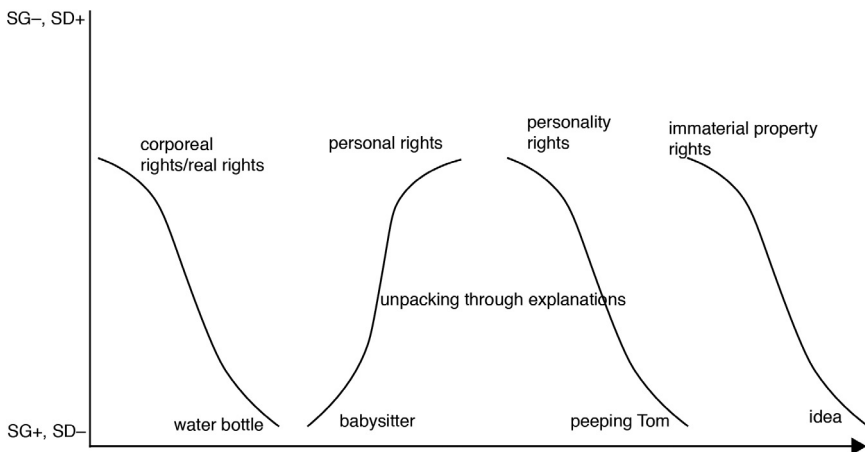


FIGURE 4.4 Listing of rights theorized as up and down escalators

Teaching needs to show students how to do this within the bounds, rules and genres that constitute the discipline's or subject's ways of making and sharing knowledge.⁵ As we create and share knowledge and meanings within social and professional settings, what we are teaching students here is how to engage and interact in appropriate or accepted ways through their knowledge and meaning-making work in discussion, in writing, in oral and visual presentations, and so on. The list in Figure 4.4 would thus need to be explicitly connected, for example, back to an earlier discussion and explanation of legal subjectivity, specifically the notion of legal subjects' rights and responsibilities. These rights could further be the basis for answering an assessment task that could encourage students to solve a problem in which a fictitious client has a case requiring the enforcement of one or more of her rights, asking students to reason and explain this reasoning rather than simply providing 'correct' answers. This would be in alignment with the rules of the game of legal education and practice, which values evaluation, reasoning and clear explanation, but also ethical and moral engagement with clients and cases (see Baron & Corbin, 2012).

The other lecturer teaching this course created a different semantic profile, specifically a higher semantic flatline. This means that the learning was rather more abstracted from a context in its initial presentation in the lecture. The concept being taught was termed the *nasciturus fiction*, a principle students needed to know in relation to civil and criminal law and the law of succession. The excerpt here is taken from a transcript of a videotaped class. The omissions marked by ellipsis are for brevity and focus.

So let's proceed with the protection of the unborn foetus by means of the *nasciturus fiction*. As you know [referring to slide on display] legal personality begins at birth. So prior to birth that foetus is not regarded as a legal subject, and therefore, because that foetus is not regarded as a legal subject such foetus cannot have rights, duties and capacities ... However, in terms of Roman law it was recognised that there might be situations where the unborn foetus might have an interest ... So what they would do is they would employ this fiction and by employing this fiction they would say that at the date of conception we will treat that child as having been born. Coz remember this is the scenario now (writing on board): the child has been conceived ... This is the birth (drawing a timeline); this is where the child is going to be born, but during this period between conception and birth the law recognises that situations may arise where the child might have an interest. So what will we do? They will employ this fiction and they will say that if the child was conceived by the time this interest began or came into effect or was available, then we will treat that child as if he was already born ... for example if that child could be a beneficiary under a will, ok? So if such a situation arises, the law protects the potential interest of the *nasciturus* ... it will only become definite at ... birth ... It's kept in abeyance. In other words it's suspended until ... the child is born in the legal technical sense. In other words those common law requirements are met.

Even if you are not familiar with this discipline and its genre or ways of communicating meaning through writing and language, you can hopefully see that this is a fairly technical account of a legal principle. Even with the slide up and the drawing on the board, there are no significant movements down the wave as yet and to students this would seem divorced from a recognizable context or application. They may be tempted to try and memorize the theory thus if the principle is left like this, because there is no other way offered to make sense of it in relation to cases or examples. The semantic flatline might look like Figure 4.5.

However, the lecturer did not leave things here. From here she moved to a fictional example and then onto actual case law to show how the fiction has applied in practice in the courts of the country. For brevity, only the fictional example is illustrated here.

So if it is clear that the unborn child would have an advantage then our law employs this fiction and then we will ... deem the child to have been born alive at the time of conception. Does everyone understand? ... So what is the legal position over here of the *nasciturus* fiction? Let's use an example. [Goes to the board, starts writing] This is the testator. The testator will draft the will, and in terms of the testator's will he says, 'I will leave my estate to my daughter and her children who are alive at my death'. Ok, so she has a child A and B and she's also pregnant with C, so I'll do C with a little circle there. In terms of the testator's will he says I leave my estate to my daughter and her children who are alive at the time of my death. The testator then dies and at the moment that he dies that is when the estate is divided, usually. At the time of his death the daughter already has a child A and B and she was also pregnant with child C. Everyone understand that example? [pause] If we look at

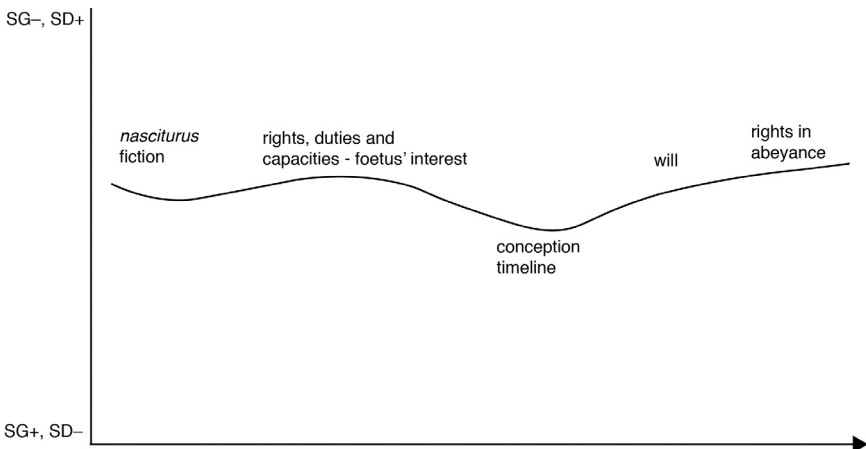


FIGURE 4.5 Higher semantic flatline for the *nasciturus* fiction

when legal subjectivity begins, would C be able to inherit? No. [students echo this] Because? [students mumble answers] Not regarded as a legal subject. But now we have the *nasciturus* fiction and in terms of this fiction what is the position of C? We will deem that C was born at the date of conception, is it not? We will then keep his interest or this advantage in abeyance until birth, ok? Now if we did not employ this *nasciturus* fiction would C have been able to inherit? No. So do you see our law then protects the unborn foetus? If C dies or is stillborn, can C then claim in terms of that will? No. The legal position is kept in abeyance until he or she is born and acquires legal personality or until it is certain that the *nasciturus* will not become a legal subject.

The higher flatline or abstracted, technical description of this legal principle is here incorporated into a semantic wave, where the principle is put to work. Through waving down from weaker semantic gravity and stronger semantic density (SG−, SD+), to stronger semantic gravity and weaker semantic density (SG+, SD−) and back again through deliberate weakening and strengthening of both relative to one another, students' understanding of the meaning of the *nasciturus* fiction is further enabled. Further examples from civil and criminal law offered in later lectures strengthened the meanings condensed within this concept and its other applications further still.

The average lecture or curriculum 'unit' or 'topic' comprising a week or two of lectures and tutorials is likely composed of a range of semantic profiles – a mix of semantic waves, flatlines and escalators. But most lecturers do not see the act of teaching in these visual terms and so are often unable to see where they may be stuck for too long in one profile, such as a flatline or a series of down or up escalators (see also Conana, 2015 for semantic profiling of Physics teaching). This has

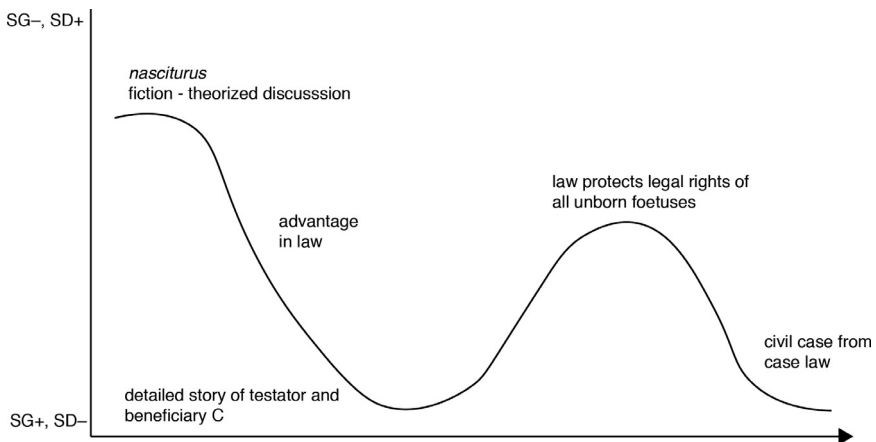


FIGURE 4.6 Semantic wave on teaching of *nasciturus* fiction

implications for what is communicated to students in terms of how knowledge is created and made sense of and how it needs to be learned and used by students in their own work. All of the semantic profiles are part of teaching, but being able to analyze and theorize how your discipline creates meanings and communicates these is valuable for seeing where the connections are being drawn and where gaps in meaning are being created. Only when we can see and understand what kinds of gaps exist in our own students' learning and understanding can we begin to make moves to change the ways in which we create deliberate semantic waves in our own teaching to bridge these gaps more effectively.

Conclusion

Traversing and bridging gaps between segmented learning and 'bitty' knowledge acquisition and cumulative meaning-making and learning takes different forms in different disciplines, because their underlying goals or outcomes are different and their knowers need to know, do and be in particular, specialized ways. Think back to the examples of 'class' and how semantic waves representing discussions of this concept these could look and sound quite different in History and Biology. In other words, the meanings that need to be made and how they need to be connected into 'wholes' is linked to the knowledges and knowers the discipline values and makes legitimate (see also Chapter 2). A significant struggle for many academic lecturers is to see, name and describe these gaps for their own students and discipline: 'What exactly do my students need to know and understand, why, how? How will I know if they "get it" in the right or "appropriate" ways?'

This chapter has argued that the existence of gaps between the teaching that is enacted by lecturers and the learning (knowing, being and doing work) evidenced by students is linked to larger concerns in higher education with segmented learning. In essence, while many students may well have disciplinary knowledge and even the specific ways of knowing, doing and being they need to succeed, they may struggle to pull all of these parts together effectively into a coherent, meaningful whole that marks them out as embodying the identity of their disciplinary community (Gee, 2015); in other words, as specialized knowers. What we desire for our students is cumulative learning – connections between knowledge, and knowing, being and doing work – that enables students to *become* graduates who can move into a chosen professional and civic space, able to adapt, act appropriately and keep learning and growing.

Semantics, specifically the concepts of semantic gravity and semantic density used to analyze teaching and develop semantic profiles, can help us dig deeper into concerns for our own students' cumulative and segmented learning and make sense of these. Semantic profiling of single lectures, parts of a module or whole modules can be used to unpack or make sense of how students need to 'wave' down from abstracted knowledge towards solving situated problems and then back up again towards a consolidated and richer understanding of the concepts and theory (or vice versa) (see also Conana, 2015). These richer and consolidated understandings

that have stronger semantic density are necessary in many disciplines, because these enable students to draw on a sophisticated, creative and powerful body of knowledge, skills and understandings to interpret and answer a range of possible current and future problems or questions. This is especially, but not only, important in professional fields, which focus on solving complex real-world problems (injuries, illness, legal cases and so on).

How do you get from A to B to C (Figure 4.7) where A is a common problem, B is the theorized or principled knowledge, and C is the solution you enact or answer you provide? The solid lines represent the more easily identifiable parts of this process, whereas the broken lines represent the ways in which we draw on both overt and tacit knowledge and experience (what you might call 'practice wisdom') gained over years of our own learning and doing. The middle parts of the wave, between the higher and lower points, tend to be the parts of the teaching that are tacit or assumed. A lecturer or tutor may well solve problems or answer typical disciplinary questions in a lecture or tutorial without necessarily making visible the weakening and strengthening steps (\downarrow/\uparrow) or moves they are making as they wave up and down. Thus, how they traverse the gap between what this chapter has loosely termed 'theory and application' can remain unclear to many students. This, again, is where using semantic profiles to visualize your teaching can help you to become more conscious of how to explain or demonstrate processes of working with theory to unpack, understand and address or solve disciplinary problems step-by-step. The profiles can help lecturers and tutors to model or represent the connections between abstracted and applied knowledge more visibly.

The key to enabling your students to become capable practitioners, whether they are moving into a defined profession or a less well-defined professional space, is to make the processes of thinking, evaluating, analyzing and connecting

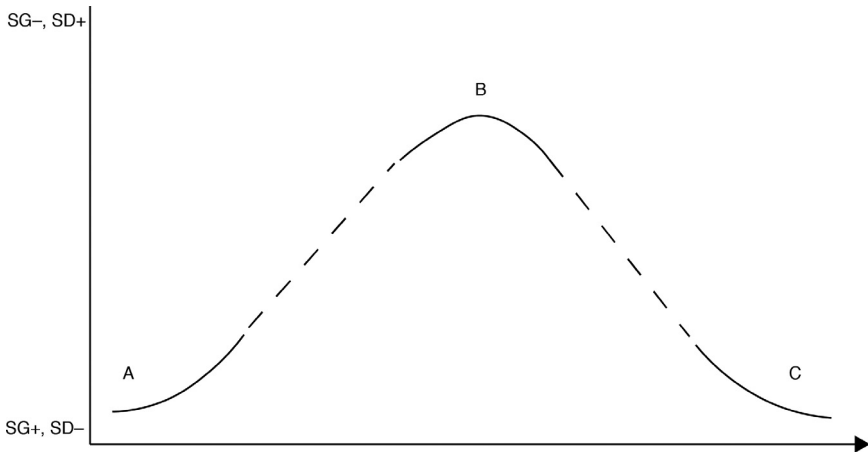


FIGURE 4.7 'Connecting the dots' in teaching the process of problem-solving

knowledge clearer. I would argue that it is the ‘verbs’ like these that we so often use in assessment tasks that form an important part of the dotted lines in Figure 4.7. It is these different acts of making meanings and the kinds of meanings the discipline needs and values that we need to pay closer attention to in teaching and also assessment. Chapters 5 and 6 will look more closely at the link between teaching and assessment, adding to the Semantics toolkit we have started to build in this chapter.

Questions for further reflection and action

- How do you conceive of the connections between parts of the module you have designed? In what ways are you planning to make these clear to students, with examples, cases, metaphors, visual images? Can you be more creative here and show them how the parts fit into a whole through drawing a ‘map’ of the meanings that will be introduced and connected in the module or course? At the start of each unit or section, you could refer them back to the ‘map’ to indicate where you have been, where you are now, and where you are going. Done iteratively, students will be encouraged and able to see these connections and may begin to look for them in other modules too.
- Look at the content or form of your teaching materials (handouts, PowerPoint slides, podcasts, etc.). Are they full of text and images that students feel they need to read, rather than listening to you and talking to one another? If your students spend a lot of time taking photos of your slides with their phones, hoping to use these to memorize or make sense of the lecturers, perhaps you need to revisit the ways in which these materials have been created. Can you rework them to be less about housing knowledge, facts or information and more about creating connections? Consider posing questions for class discussion or a peer-to-peer task, for example, or putting up sample questions or problems and working through appropriate solutions.
- To what extent are your students encouraged to work hands-on in lectures? Perhaps you could put a worksheet onto Google Drive, OneDrive or the Learning Management System and have spare paper copies for those without laptops. The point of the worksheet could be to explicate a problem-solving process and students could work on these in small groups. Working hands-on often strengthens semantic gravity for students as they can actually practise using knowledge in a ‘low stakes’ situation where it feels acceptable to make mistakes. Used a few times in a module or semester, such tasks can enable them to also deepen their understanding or strengthen the semantic density of key terms, genres (ways of creating texts), and so on. Focused examples and questions are a really good tool for making the process of analyzing, evaluating, comparing, etc. (part of the dotted line in Figure 4.7) more solid and visible.
- In addition to all the teaching required of you, you and your colleagues must also conduct and publish your research. This creates time and headspace pressures, so consider the affordances and benefits of collaboration. Who could

you collaborate with in your department to experiment with ideas in this chapter? Write down one small change you could make that would not require a huge investment of time, but would make a notable difference to your students' learning experiences. For example, instead of simply giving students a test memo to show the correct answers or solutions, use a lecture as an opportunity to model the ways in which they could break down, think about, solve and then write appropriate responses to typical questions. How might you divide up 'experiments' like this among colleagues to learn from each other? How can you make changes that are lasting but also practicable?

Given the increasing diversity of our student cohorts globally in terms of home language, educational background and 'preparedness' for university, we cannot afford to teach in ways that assume all students will see what is left tacit on their own; we cannot make students solely responsible for making connections and closing or bridging gaps. That some of your students are able to do this with minimal help is not an indicator that the rest are not trying hard enough. More likely, it indicates that the relatively privileged home and school backgrounds of those students have better prepared them for the transition to university life and study.

Thus, if we want to turn access to education and learning into truly successful transitions from university into professional work and ongoing learning, we need to consider that what may need changing most urgently is the assumptions we make going into teaching, and the act of teaching itself. To make the changes needed to improve the conditions for student success in our own contexts, we need to be brave and critical enough to assess honestly where our teaching is falling short and enabling limited success for our students. With more honest reflection and willingness to learn and grow, we can begin to make the changes that are needed.

Notes

- 1 To recap briefly from earlier chapters, Gee (2015) defines a big D Discourse as ways of speaking, reading, writing, thinking, valuing, believing and acting, all of which constitute a particular, socialized identity. This Discourse is what disciplinary teaching and learning needs to provide successful access to, as well as opportunities to acquire and master all of its particular aspects so students can join a disciplinary community of practice.
- 2 For a basic account of President Bolsonaro's use of WhatsApp to spread disinformation ahead of the polls, read Luca Belli's article in *The Conversation* and Mike Isaac and Kevin Roose's piece in the *New York Times*, both in the reference list.
- 3 This definition is accessible here: <https://www.lexico.com/definition/class>.
- 4 Basic definitions offered by [https://www.biologyonline.com/dictionary/class#:~:text=\(2\)%20A%20taxonomic%20group%20comprised,Mammalia%20belongs%20to%20phylum%20Chordata](https://www.biologyonline.com/dictionary/class#:~:text=(2)%20A%20taxonomic%20group%20comprised,Mammalia%20belongs%20to%20phylum%20Chordata).
- 5 Genre is helpfully defined by Tardy (2011, p. 54) thus:

Genres are typified forms of discourse – that is, forms that arise when responses to a specific need or exigence become regularized. With repeated use, responses begin to conform to prior uses until the shape of these responses become expected by users. Genres, then, are recognizable by members of a social group. For example, scientific

researchers may recognize conventional ways to report research findings, business people may recognize conventional ways of articulating a company's mission and politicians may recognize conventional ways of delivering a campaign speech. Within each of these groups, we also find variations related to socio-rhetorical context: research reports, mission statements and campaign speeches are likely to be carried out differently depending on factors like academic discipline, workplace context or geographic region.

References

- Baron, P., & Corbin, L. (2012). Thinking like a lawyer/acting like a professional: Communities of practice as a means of challenging orthodox legal education. *The Law Teacher*, 46(2), 100–119.
- Belli, L. (2018). WhatsApp skewed Brazilian election, proving social media's danger to democracy. *The Conversation*, 5 December. <https://theconversation.com/whatsapp-skewed-brazilian-election-proving-social-medias-danger-to-democracy-106476>.
- Biology Online. (n.d.). Class. [https://www.biologyonline.com/dictionary/class#:~:text=\(2\)%20A%20taxonomic%20group%20comprised,Mammalia%20belongs%20to%20phylum%20Chordata](https://www.biologyonline.com/dictionary/class#:~:text=(2)%20A%20taxonomic%20group%20comprised,Mammalia%20belongs%20to%20phylum%20Chordata).
- Blackie, M. A. (2014). Creating semantic waves: Using Legitimation Code Theory as a tool to aid the teaching of chemistry. *Chemistry Education Research and Practice*, 15(4), 462–469.
- Case, J. M. (2013). *Researching student learning in higher education: A social realist approach*. Abingdon: Routledge.
- Case, J. M., Marshall, D., McKenna, S., & Mogashana, D. (2018). *Going to University. The Influence of Higher Education on the Lives of Young South Africans*. Cape Town: African Minds.
- Clarence, S. (2014). *Enabling cumulative knowledge-building through teaching: A Legitimation Code Theory analysis of pedagogic practice in Law and Political Science*. (Doctoral dissertation, Rhodes University, Makhanda, South Africa). Retrieved from: <https://core.ac.uk/download/pdf/145045245.pdf>.
- Clarence, S. (2017). Surfing the waves of learning: Enacting a Semantics analysis of teaching in a first-year Law course. *Higher Education Research & Development*, 36(5), 920–933.
- Conana, H. C. (2015). *Using semantic profiling to characterize pedagogical practices and student learning: A case study in two introductory physics courses* (Doctoral dissertation, University of the Western Cape, Cape Town, South Africa). Retrieved from: <http://hdl.handle.net/11394/4962>.
- Garcia-Martinez, S., & Zingaro, D. (2011). Teaching for transfer of learning in computer science education. *Journal for Computing Teachers*, 1–6.
- Gee, J. P. (2015). *Social linguistics and literacies. Ideology in discourses* (5th ed.). Abingdon: Routledge.
- Healey, M. (2005). Linking research and teaching: Exploring disciplinary spaces and the role of inquiry-based learning. In R. Barnett (Ed.), *Reshaping the University: New Relationships between Research, Scholarship and Teaching* (pp. 67–78). Berkshire: McGraw Hill/Open University Press.
- Isaac, M., & Roose, K. (2018). Disinformation Spreads on WhatsApp Ahead of Brazilian Election. *New York Times*, 19 October. <https://www.nytimes.com/2018/10/19/technology/whatsapp-brazil-presidential-election.html>.
- Jacobs, C. (2019). Keynote address, Annual HELTASA Conference, 27–29 November 2019, Rhodes University, South Africa. <https://www.youtube.com/watch?v=BUXHGXCXcOMc&t=2249s>.
- Kirschner, P.A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, 41(2), 75–86.

- Macnaught, L. (2020). Demystifying reflective writing in teacher education with semantic gravity. In C. Winberg, S. McKenna, & K. Wilmot (Eds.), *Building Knowledge in Higher Education. Enhancing Teaching and Learning with Legitimation Code Theory* (pp. 19–36). London: Routledge.
- Macnaught, L., Maton, K., Martin, J.R., & Matruglio, E. (2013). Jointly constructing semantic waves: Implications for teacher training. *Linguistics and Education*, 24(1), 50–63.
- Maton, K. (2006). Why theory? It's not rocket surgery! *AARE NEWS*, 56, 11.
- Maton, K. (2009). Cumulative and segmented learning: Exploring the role of curriculum structures in knowledge-building. *British Journal of Sociology of Education*, 30(1), 43–57.
- Maton, K. (2013). Making semantic waves: A key to cumulative knowledge-building. *Linguistics and Education*, 24(1), 8–22.
- Maton, K. (2014). *Knowledge and knowers: Towards a realist theory of education*. London: Routledge.
- Maton, K. (2020). Semantic waves: Context, complexity and academic discourse. In J. R. Martin, K. Maton & Y. J. Doran (Eds.), *Accessing Academic Discourse: Systemic functional linguistics and Legitimation Code Theory* (pp. 59–85). London: Routledge.
- McKenna, S. (2004). Lecturers' discourses about the interplay between language and learning: Research in higher education. *South African Journal of Higher Education*, 18(2), 278–287.
- Quinn, L., & Vorster, J-A. (2019). Why focus on “curriculum”? Why now? The role of academic development. In L. Quinn (Ed.), *Re-imagining curriculum. Spaces for disruption* (pp. 1–22). Stellenbosch: SUNPress.
- Tardy, C. M. (2011). Genre analysis. In K. Hyland & B. Paltridge (Eds.), *Continuum companion to discourse analysis* (pp. 54–68). London: Continuum.
- Wheelahan, L. (2010). *Why knowledge matters in curriculum. A social realist argument*. Abingdon: Routledge.

5

'SHOW ME WHAT YOU'VE LEARNED'

Guiding cumulative assessment practice

Introduction

One of the main ways in which we can see what students have learned and how they are able to evidence their growth as knowers is through assessment. In the actions they perform in practical tasks, in the texts they write, and in other formal and informal ways, students can show us what they have learned and we can assess the extent to which this learning is sufficient or forms a foundation for future learning. All of this work is not just about what students know or what they can do, practically. It is also about how they know and how to make informed choices about what evidence to present and how to present it across different contexts in which that knowledge applies. In other words, what we also need to help students learn is how to be 'literate' in the writing, reading, thinking and acting practices of their disciplines. This chapter explores how we can guide students through assessment tasks and assignments in ways that enable more overt and conscious literacy development and learning.

Assessment implicates academic literacies and the ways in which students are able to harness different literacy practices to demonstrate their knowledge and understanding. Academic literacies are perhaps most usefully and practically understood

... as a broad descriptor of the writing activities or textual conventions, associated with academic study in general ...; as a descriptor of the range of the rhetorical practices, discourses and genres in academia bound up with specific disciplines ...; qualified in some way, for example to refer to a level of competence or "acquisition" such as "advanced academic literacy", used to refer to the writing of doctoral and Master theses generally or in relation to specific disciplines.

(Lillis & Scott, 2007, p. 7)

Literacy practices in the academic disciplines relate largely to the researching and writing of different kinds of texts, whether these are oral, written, visual (e.g., artworks or images) or physical (e.g., a performance or an experiment).

We can use Semantics from Legitimation Code Theory (LCT) to consider the ways in which assessment tasks and assignments – and the guidance offered on how to complete these successfully – communicate to students which disciplinary academic literacy practices are valued and how they can be cumulatively and consciously developed. Assessment (which is considered more fully in Chapter 6) is such an important part of education because it not only certifies achievement; more importantly, it facilitates or 'drives' learning (Boud & Falchikov, 2006). In other words, this is the part of the learning process students pay the most attention to and utilize to direct the learning activities they devote more time and attention to. If we reward an activity or focus area in assessment, students will pay attention to it in their learning. Thus, assessment can become a powerful tool for guiding students to learn in more effective ways. This chapter uses Semantics to look closely at how assessment tasks are constructed and how students are taught to respond to assessment tasks in terms of the *literacy practices* required of them. In particular, it looks at how literacy practices students need to employ to succeed in assessment are connected to disciplinary knowledge and a specialized way of being a knower. The focus is not on assessment as such – this is more the focus of Chapter 6 – but rather on the ways in which literacy practices are developed through completed student tasks, whether for marks or not.

A common notion in higher education linked to how well or poorly students perform, in terms of their ability to read, write, think and speak in expected ways, is termed the 'deficit mindset' (Smit, 2012, p. 369). In essence, this way of thinking holds that students who cannot work in the ways expected at university lack the kinds of knowledge or 'skills' needed to succeed at university level and require remedial or additional support to raise themselves up to the standards set by the university. Some students, those who identify as upper or middle class, will have been better prepared for becoming literate at university because they will have attended well-resourced schools, typically have parents who have further education of some form, and may well have ready access to books, academic support, the Internet and other sources of knowledge and academic help. Students with educated parents will have been further exposed to the kinds of abstracted ways of thinking and arguing that are privileged in the university (see Boughey, 2013; McKenna, 2004), for example, being asked for and learning to express and defend their opinions on issues of the day. But many students come from less well-resourced schools and less literate homes where, for example, weekends are for working in the home rather than reading a novel, and money for computers, tutoring and books is scarce or non-existent. They are less prepared to meet the university's literacy expectations and demands without struggle (see Boughey & McKenna, 2016; Leibowitz, 2004).¹ These students are often the ones targeted by deficit thinking and thereby encouraged or forced to make use of remedial support, both formally (in a set module or programme) or informally (from a writing centre). For lecturers and tutors this means

thinking quite critically about the status quo in their disciplines as regards how students are taught to become literate knowers.

A significant amount of time and money over the last four decades at least has gone into remedial support for students who are deemed to be 'at risk' of failing university because of perceived deficits. In the United States, United Kingdom and South Africa, early academic support and writing centres were founded to address deficits in student writing, 'study skills' and ability to cope within a university environment (see Boquet, 1999; Boughey & Niven, 2013; Mitchell, 2010). However, many working within these centres and programmes found two main issues with the premise of this remediation: the first was that most of the students coming to obtain help were from working class backgrounds, which meant poorer levels of literacy support from home and school; the second was that the 'blame' for not being prepared adequately, as well as the responsibility for being properly prepared, rested on the shoulders of these students. This meant that not only were working class students stigmatized for not being the 'right' kinds of students, they were also made to shoulder the burden of working out the 'mysteries' (see Lillis, 2001) of *disciplinary* literacy practices and mastering these without adequate help from experts within the disciplines.

Strong critiques of deficit thinking have become quite common in universities around the world over the last two decades especially (Boughey & McKenna 2016; Mitchell, 2010; Smit, 2012; Thesen & van Pletzen, 2006). There is a significant amount of research and practice wisdom that shows that decontextualized literacy support or teaching has limited success without the involvement of the disciplines (the contexts in which literacies are used to make meaning). Yet, narrower notions of literacy practices as 'skills' students could or should be able to learn before coming to university or on a 'writing skills course' continue to influence literacy work in higher education; specifically, in supporting the continuation of doing literacy and writing development and teaching work separate from the disciplines that actually use the literacy and writing practices to assess student learning and eventually confer knower status onto students. One of the main reasons this situation continues may lie in its appeal to an individualized, psychological understanding of successful learning. In essence, this understanding holds that if students are motivated, work hard and have the cognitive ability to learn, they will do well regardless. It follows that students who are not doing well are perhaps not 'university material' and do not have the required motivation and work ethic (see Boughey & McKenna, 2016). This belief is hugely problematic considering the growing diversity of students in universities everywhere, many of whom have already worked hard to get to university to begin with.

It is in many ways easier to 'blame' students for not being able to read, write, speak and think in the ways universities expect than it is to consider that the university itself has to make some significant and time-intensive changes. But it is unjust to continue to blame students for not being the 'right' kinds of students for universities still conceived of in fundamentally exclusive, 'elite' ways, reserved largely for those in the upper and middle classes in society (see Mohamedbhai, 2014; Chapter 3, this volume).

To become successful knowers, students need to become literate in the ways of knowing, being and doing *of their disciplines*. This chapter will hopefully empower lecturers to grapple with teaching their disciplinary literacy practices within the curriculum, focusing especially on responding to assessment tasks in writing. The chapter will offer a way of theorizing assessment and related processes of thinking and writing using the LCT dimension of Semantics, specifically semantic waves and the semantic plane. These tools can be applied, however, to other literacy acts, such as unpacking core texts, working out how to structure and make oral presentations, and even to designing and testing experiments.

Conceptualizing literacies in higher education: content versus form?

One of the most influential trends in higher education, shaped by cognitive understandings of learning, is the division of learning into content on the one side and form or skills on the other. The cognitive approach basically argues that successful learning is a matter of mastering knowledge defined as a set mental structure of information and processes (Zimmerman, 1989) or put differently, sets of 'content' and 'skills'. While it is true that we perceive information and processes cognitively and the brain is the organ we use to make sense of what we learn, the cognitive approach to teaching and learning underscores the individualized approach mentioned in the previous section (see also Chapter 1). It leads to beliefs that, with the right motivation and self-regulation and with the right inputs of knowledge and skills (such as writing instruction, for example), students should be able to achieve success relatively independently. Independence and self-regulation is highly prized in higher education. The cognitive approach may lead to questions I have often heard from lecturers I have worked with, such as 'How can I make my students want to learn?'; 'Why can't these students be more independent? Why do they need so much hand-holding?'; and 'Why can't my students read and write properly?'

These kinds of questions do not fully recognize the power of structures and systems of teaching, learning, assessment and administration in universities that are historically skewed in favour of some and against the many (see Chapter 3 for more on the history of universities). The 'content versus skills' binary underscores deficit thinking about literacy learning and development and a narrower notion of complex literacy practices as discrete skills (see Lillis, 2001). If students are unable to create effective or appropriate disciplinary texts, especially after passing a 'writing skills' or 'academic literacy' module, they may well be criticized for not being 'university material', not working hard enough or reading enough, or not being proficient enough in the language of teaching and learning (predominantly English). This is obviously problematic if we are genuinely concerned with improving student success at university for all students rather than only for a relative few.

One of the main ways in which lecturers, tutors and academic developers can challenge and change this mindset or thinking is through more conscious and

creative approaches that focus on both knowledge and knowing and the ways in which these are connected in acts of meaning-making. Seeing knowledge *and* knowers, and the ways in which different disciplinary meanings implicate and develop *both* in specialized ways can profoundly undo a common-sense view of the disciplines' role as teaching 'content' and a writing centre or academic support unit's role as teaching 'skills'. It can also empower educators to avoid generic 'best practice' accounts of teaching, learning and assessment that tend to reduce complex ways of interpreting and teaching meaning-making to generalizable skills that can apply across the disciplines if students 'transfer' them successfully (see Jacobs, 2019). Again, we want to challenge approaches to teaching and learning that put the onus onto students to work out how to make sense of their disciplines without overt, conscious guidance and expert teaching (see also Chapter 4). In the case of assessment and literacy development, we need to acknowledge the social and socialized nature of learning, and literacies.

Literacies as social and socializing acts of knowing

If we divide learning at university into 'content' and 'skills' and hold these in a binary relation to one another, we make two serious mistakes. The first is that we do not see the essentially social and socialized nature of literacy practices and the elements that make them particular, specialized, and imbued with values and ways of being and knowing. We may try to teach students to write particular texts using generic forms and instruction, such as teaching essay writing in a basic, five-paragraph format as if all essays conform to one structure and use the same language and style.² The second mistake, linked to the first, is that in seeing only 'content' and 'skills', we miss a crucial aspect of higher education: the personally transformative nature of becoming a different kind of knower, specialized into membership in a disciplinary community of other knowers (see Case, 2013). To truly enable successful, specialized learning, we need to show students how to *be* knowers or members of the disciplinary community of practice. To achieve this, we need to see literacy as Gee (2015, p. 49) does, as involving 'ways of interacting, thinking, valuing and believing' in addition to the more commonly known practices of reading, writing and speaking. It is untenable, then, to hold onto the 'content versus skills' binary and argue that literacies are skills that students will learn if they just try harder.

As we have begun to explore in the chapter so far, literacies are not cognitive 'skills', but are more nuanced and embodied (i.e., not just 'in our heads'). Being literate is fundamentally a social way of being. What this means is that literacy acts are practices that we embody and that are part of a scholarly and also personal identity (see Gee, 2015). We *are* literate, which means that we can read, write, think, converse, debate and behave in particular ways that mark us out as particular kinds of knowers. We *are* knowers, which means we embody a specialized way of being in the world (see Chapter 2). Literacies, then, are fundamentally social, meaning that in producing or creating forms of text we share common methods,

language, style, tone and so on within communities of practice; we write about shared knowledge – canonical texts, procedures, principles and so on; we share sets of values about what being literate is and how we recognize this in shared texts and practices (Gee, 2015; also Carter, 2006; Lillis, 2001; Street, 2014). As Gee argues (2015, p. 49): 'You can no more cut the literacy out of the overall social practice or cut away the non-literacy parts from the literacy parts of the overall practice, than you can subtract the white squares from a chessboard and still have a chessboard'.

Reading and writing are base literacy practices, visible and widely written about, spoken about and worried about in higher education. All students have to write to evidence their knowledge, understanding and ability and earn their qualifications. These reading, writing and thinking activities are 'high stakes' (Maton, 2014a), meaning they carry weight in terms of the marks attached and the way in which all the marks add up to passing or failing. They are also 'high stakes' because much is expected of students in performing these activities well, with proportionally less guidance and input into how to do them successfully (Maton, 2014a; Elton, 2010). However, the ways in which reading, writing and thinking work is visible, performed and valued differs across the disciplines and in relation to other kinds of literacy practices.

Disciplines in the humanities and social sciences are more obviously focused on written texts as core knowledge and knowing activities. In these disciplines writing is doing and thinking, for the most part. Disciplines in the natural and applied sciences tend to involve more visible practical work, such as lab work, fieldwork and forms of work-integrated training (for example in medicine, nursing and social work). In these disciplines, speaking and acting in particular ways, about particular subjects or knowledge, are visibly valued literacy practices alongside writing and reading. In spite of these differences, though, all disciplines require students to read and write, and think 'critically' about their reading and writing, which makes these acts the focus of this chapter (alongside a large existing body of literacy development work and research). Although all disciplines premise assessing student success on the ability to read, write, think, speak and act in desired or required ways, they do so in quite different and specialized ways (see Szenes, Tilakaratna, & Maton, 2015). In other words, literacy practices are used both to access and to create different, *specialized* meanings and knowledge.

Literacies cannot, then, be successfully learned and mastered in generic, isolated or 'add-on' ways, outside of the disciplinary curriculum (Clarence & Dison, 2017; Hathaway, 2015; Wingate, 2006). It is highly unlikely that the average higher education student in any context will learn to read, write, think, speak and behave in ways that are expected of knowers in specific disciplines unless they learn these practices within the disciplinary curriculum from those who are literate, specialized knowers. If knowledge is specialized by different disciplines and their associated communities of practice, and if students are expected to become disciplinary knowers who use this knowledge in specialized ways (see Chapter 2), then it must follow that the ways in which this knowledge and knowing is acquired are specialized too. For disciplinary lecturers and tutors, this means taking on the work of teaching students to read, write, think, speak and act as knowers.

But influenced heavily by the 'content versus skills' binary and the deficit thinking that still has power within universities, there is a lingering perception that teaching students how to read and write academically is not a disciplinary lecturer's job. This perception is linked to two related beliefs: that teaching literacy as a practice is too time-consuming given the need for the curriculum to cover so much content in such a short space of time; and that disciplinary lecturers cannot teach writing because they are not language teachers. For a more focused discussion on curriculum choices and design, you can read Chapters 2 and 3 if you have not already done so. Here I will focus a little on writing and 'the language problem' before moving into a way of theorizing writing in the curriculum differently.

Language is the main resource we have for making sense of the world and for communicating meanings. We can communicate sophisticated meanings when we have a larger vocabulary and knowledge of the structure of the language we are reading, writing and thinking in. But being proficient in a language of teaching and learning does not automatically translate into sophisticated writing and thinking and related academic success. The main reason is that how we read, write, think and so on is influenced by the socialized ways in which we create and share knowledge. So, when I create the present chapter you are reading, my ability to do so well is not just or only about my grasp of English; it is more profoundly about my understanding of the genre of argument-writing in the discipline of Education Studies, who my audience is, and my knowledge and understanding of what I am writing about. This means, in a nutshell, that lecturers are not supposed to be 'language teachers' because learning 'language skills' is not at the core of being a successful knower.³

There are, however, many sourcebooks and published papers that may reinforce a notion of language proficiency as key to academic success, and imply that literacy is a set of more generalised academic skills (see, for example, Harrison, Soars, & Soars, 2015; and Philpot, 2011). The prevalence of the notion that better language skills makes students more successful can make it difficult to see the necessity of challenging the 'content versus skills' binary, especially in departments and faculties where colleagues believe in and support it. This is where seeking out and nurturing relationships with academic development centres, student support centres and writing centres who hold a more social, critical understanding of literacies can be empowering. Many of these units and support centres across the Global North and South have developed critical, theorized approaches to literacy development in and across the curriculum (see, for example, Clarence & Dison 2017; Lillis, Harrington, Lea, & Mitchell, 2015; and Thesen & van Pletzen, 2006). I am arguing that disciplinary lecturers need to be responsible for, and centrally active in, developing students' literacies and knower attributes alongside enabling their acquisition and understanding of disciplinary knowledge. But I am also aware that, for many of the reasons discussed thus far, many find this work difficult. A theorized approach to teaching literacies as meaning-making practices can enable disciplinary lecturers to create specialized, accessible ways of teaching students what they need to know, interwoven with how they need to know it, what they need to do with it, and why.

This chapter offers such an approach: to show lecturers and academic developers one way of enhancing literacy development, specifically through teaching writing and thinking more overtly in relation to assessment. The next section will explain the rationale for using Semantics, the dimension of LCT most explicitly focused on the hows and whys of meaning-making work, and introduce *semantic waves* and the *semantic plane*. The following section will then analyze data that enables a discussion of both how assessment can be done differently to make the specialized literacy practices of your discipline clearer and less mysterious to both you and your students.

Literacies, knowledge and meaning-making in the disciplines

Meaning and knowledge are inextricably connected, but teaching students how to know and make meanings can seem harder to do than teaching students what the knowledge is that they need to know. For example, teaching students the features of a state and characteristics of different kinds of states is a *what*. This is descriptive knowledge. But what students actually need more knowledge of in Political Science, the *knower code* explored in Chapter 3, is analytical, or *why*, knowledge: why do we need to know about how states behave? Why do they behave as they do? Why should we think about state power in the global system? And so on. This 'why' knowledge then needs to be linked to 'how' knowledge: How do political analysts look at the state and state power? How do they make sense of state-to-state relations and compare states? This is not just the case for *knower codes*. In knowledge codes, such as Chemistry, simply 'knowing' the equation $\text{NaCl(s)} \rightarrow \text{NaCl(aq)}$ does not mean you necessarily know why this equation represents dissolution or how to get from the act of dissolving salt in water to representing it in this abstracted, equation form (see Blackie, 2014). Why do you even need to understand and apply the concept of dissolution in Chemistry, what is the value or use of this knowledge?

The problem with predominantly focusing on teaching the *what*, rather than using the *what* as a vehicle to teach the more important and enduring *how*s and *why*s of the disciplines, is that this tends to leave much of the hard work of meaning-making up to students. Consider the earlier discussion on the different literacy experiences and learning students have had prior to university and the huge variation in terms of the kinds of literacy support students have access to inside and outside the disciplines. Taking this into account, we can argue that leaving critical disciplinary meanings to students to work out without explicit guidance is both unjust and unsustainable. Disciplinary teaching, learning and assessment work must, therefore, consciously include teaching students how to know the relevant knowledge and to know why knowledge matters. Disciplinary literacy practices, such as thinking and writing, enable students to access the *how*s and *why*s and make sense of these.

The heart of the challenge here is enabling cumulative or connected teaching of literacies and meaning-making, rather than the more common reality of segmented literacy learning and teaching (see Maton 2009; 2013; also Chapter 4). At its core, cumulative learning in reading, writing and thinking, specifically, is about being

able to make different kinds of connections: between concepts used differently in a range of texts; between language and what the language is describing or explaining; between what has been written in published writing and course materials, assessment tasks, and students' own ideas and emerging arguments. None of these connections are necessarily obvious, even to disciplinary experts (see Jacobs 2005; 2007). However, they are possible when knowledge is seen as inextricably connected to knowing, and when knowledge is perceived to be about making meaning rather than getting information. To show students how to become and be literate in the ways that are legitimated in the discipline we teach, then, requires a way of theorizing meaning-making and how to better enable students to make the kinds of meanings that matter in your discipline.

To teach writing as a disciplinary or subject-based literacy practice, we need a way of conceptualizing what kinds of meanings we value and how to use the acts of reading, writing and thinking to create those meanings more successfully. This conceptual work can then be translated into writing assessment guidelines and tasks differently, talking to students about their understandings and knowledge of literacy rather than assuming their prior knowledge, and offering different kinds of feedback on the work they produce (see Chapter 6 as well). The dimension of LCT that enables us to do this conceptual and practical work is Semantics, which is a dimension focused on theorizing meaning-making and how and why meanings are made and connected *cumulatively* in particular ways. There are two related tools within Semantics this chapter will be using: *semantic waves* and the *semantic plane*. Both are created using the two organizing principles introduced in Chapter 4, discussed here again with particular reference to using them in relation to literacies and assessment. These are *semantic gravity* (SG) and *semantic density* (SD).

Semantic gravity (SG) refers to what extent meanings are dependent on their context to make sense (Maton, 2014b, pp. 106–124). For example, if I introduced students to the concept of 'cumulative learning' by explaining the concept of meaning in abstracted terms and did not use any examples or simpler explanations, this would be a meaning that does not depend on any specific context or application to make sense. It would make sense outside of or abstracted from one application or one context. This concept would exhibit weaker semantic gravity because it sits 'above' many different potential contexts or applications (SG–): 'A' in Figure 5.1. If, however, I explained the same concept starting from an example, such as connecting therapeutic theories and practices together in natural medicine, 'cumulative learning' would now have stronger semantic gravity because it now has meaning linked very closely to natural medicine and the kind of learning students need to achieve to be successful in that context (SG+: 'B' in Figure 5.1).

Semantic density refers to the complexity of meanings within terms, concepts, gestures, symbols and so on (Maton, 2014b, pp. 125–147). Semantic density (SD) can be strengthened and weakened in inverse relation to semantic gravity (as in Figure 5.1) or in direct relation (see Figure 5.2 for the semantic plane). Essentially this means that it can be weaker when semantic gravity is stronger or they can both be weaker or vice versa. Weaker semantic density denotes terms/concepts/symbols,

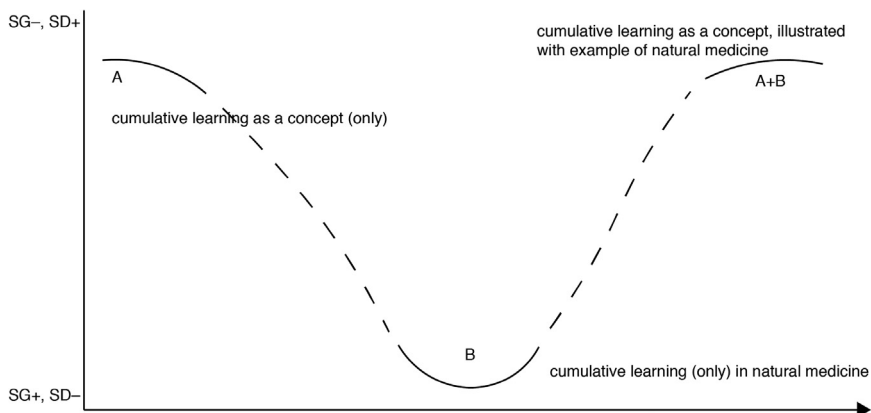


FIGURE 5.1 Basic semantic wave profile for 'cumulative learning'

etc., that have fewer meanings. Stronger semantic density denotes terms/concepts/symbols, etc., that have more meanings. To return to the example above, the concept of cumulative learning, when explained in purely conceptual terms, can seem either quite dense or not very meaningful at all. For the student hearing it for the first time, without examples and explanation, it may be experienced as having weaker semantic density (SD-); it might just sound like a word or term without much meaning. I, as the lecturer, can appreciate all the possible meanings of that concept and might experience this concept as having stronger semantic density (SD+) ('A' in Figure 5.1). To bring my students' experience closer to my own and to illustrate the potentially multiple meanings of the concept applicable across a range of case studies or applications, I would need to explain it, exemplify it, and get students to discuss it with me. This process of explaining and exemplifying involves varying the relative strength and weakness of semantic gravity and semantic density. A common example is that as you apply one meaning to one example, you strengthen the semantic gravity and weaken the semantic density (SG+, SD-). As you pack more possible meanings into the concepts you are teaching, through layered or iterative processes of explaining, representing, exemplifying and so on, semantic density can be strengthened over time in terms of students' depth of knowledge, understanding, and meaning-making.

Both ways of making meaning – conceptual and applied – are important for successful, *cumulative* learning. But if we focus too much on one ('A' or 'B'), without connecting to the other in clear and accessible ways, we may end up with segmented or disconnected pieces of learning, which will be visible in students' literacy practices and 'products' (how and what they read, write, speak, and do). The dotted lines in Figure 5.1 represent possible connections that remain tacit for many students unless the lecturer, tutor or a more knowledgeable peer makes them visible. This is where semantic gravity and semantic density can be weakened and strengthened as needed, in relation to one another.

To make the dotted lines solid or the tacit connections explicit, we need to think about the link between the concept and the example in which we want to apply it. This connection could be made for students through a couple of focused questions, for example: 'Think about this module you are studying now. How might you understand your own learning so far as being *cumulative*? What concepts have you been able to apply to more than one problem or issue? What are these issues?' Students are then prompted to look for a downward shift or strengthening of the semantic gravity and weakening of semantic density, from abstracted to contextualized knowledge. Through discussion, you could then reach point B, offering your own input to supplement theirs on how cumulative learning in natural medicine (or any discipline) might look. You could then 'repack' or consolidate the theorized meaning of this term through leading students back up the wave, again through questions, perhaps: 'So, based on these answers, can we add to this conceptual understanding of "cumulative learning"? Can we redefine or more substantially define it? What would you now say we are trying to achieve in our learning in this module?' They are prompted then to try and weaken the semantic gravity and strengthen the semantic density. This might lead them to 'A+B' in Figure 5.1, where both the conceptual and contextualized meanings can be woven together into a new or more robust meaning. Questions or prompts like these indicate to students that moves up and down waves of learning are necessary, connecting different meanings together rather than collecting pieces of meanings at different points that appear static or disconnected.

What the visual tool of a semantic wave can help us to see is that learning needs to be *both* conceptual *and* contextualized. Students need powerful conceptual and theoretical understandings of the world, but they also need to see how these theories and concepts work to explain and describe the world, through using these to solve, reflect on, and/or analyze disciplinary problems, case studies, examples, and so on. Ideally, then, teaching and assessment needs to enable 'waving' or conscious movements between what counts in your discipline as 'theory' and what counts as forms of 'application' (Chapter 4 has more on this). Semantic waves (represented in Figure 5.1) are something we expect students to realize in the kinds of literacy acts they produce: an oral presentation, an essay or lab report, a case summary, a reflective journal entry, etc. We expect students to use 'theory' to make sense of an 'application' or contextual issue we have asked them to apply their mind to, especially if we have presented both forms of theory and examples of application in teaching (see Chapter 4 for semantic profiles and semantic waves in teaching).

Yet, for too many students there seems to be a gaping hole between what Maton (2014a) has termed 'high-stakes reading' and 'high-stakes writing'. I would add to this that there are also large gaps for students between the guidance and instruction they are offered around the nature of the task itself and what they need to create or produce to answer it successfully. This means, to follow Figure 5.1, too many dotted lines or tacit expectations and assumptions, rather than explicit teaching and guidance. This does not provide a context for academic success for many students, no matter how motivated they are to learn. We cannot reasonably expect students who are novices to disciplinary

ways of knowing, being and doing to work out how to bridge these gaps successfully, across a range of tasks and increasingly complex 'theory'. These bridges need to be built with students, through clearer assessment task writing and guidance around assessment.

Semantic waves are useful for visualizing where there are gaps and help us begin to think about how to bridge these. But there is another tool from Semantics that can assist in this, showing shifts or moves between meanings that need to be made with a different 'lens'. This is the semantic plane. The semantic plane uses the same two concepts as the semantic wave: *semantic gravity* (SG) and *semantic density* (SD). But rather than working on a profile where they tend to be realized in inverse relation to one another (Figure 5.1 and Chapter 4), the semantic plane brings them together in a Cartesian plane, similar to the specialization plane (Chapter 2, Figure 2.1). There are four codes formed in this process. Moving from top left to bottom left, clockwise, in Figure 5.2 these are:

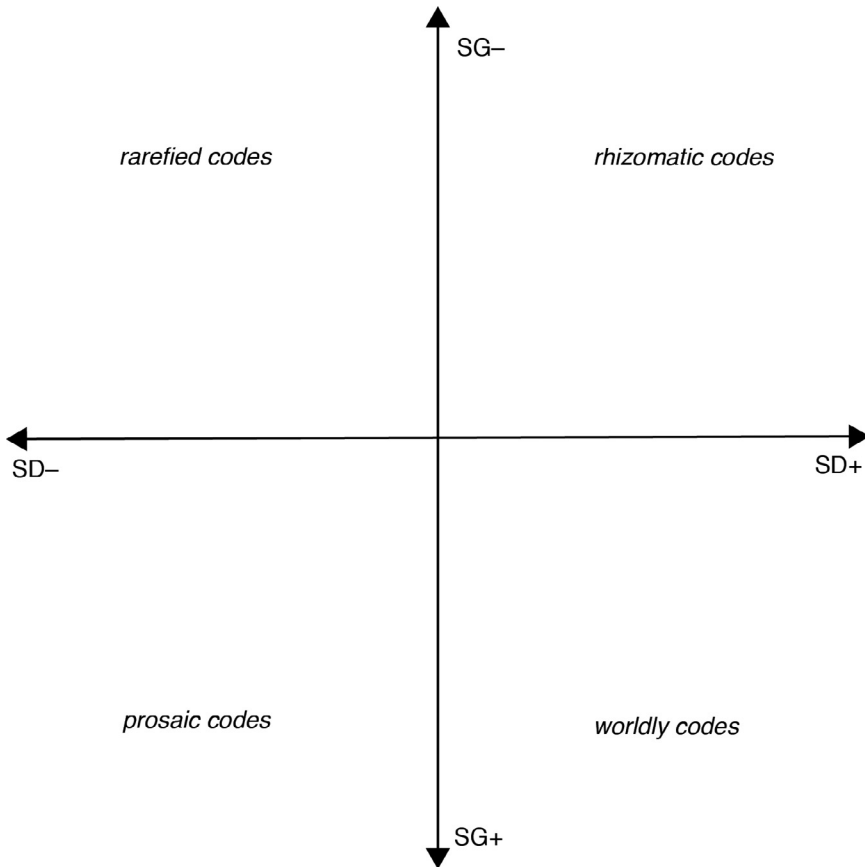


FIGURE 5.2 The semantic plane
Source: Maton (2015), 16.

- *Rarefied codes*, marked by weaker semantic gravity and weaker semantic density (SG−, SD−). This can refer to a problem or scenario that is abstracted from a specific context (like theoretical or conceptual work), but also relatively simplified in its presentation or proposed solution. Think perhaps of an assessment task where students have to use simplified or basic concepts to analyze a relatively simple problem and find a solution, such as a basic mathematics problem (If $3x = 12$, solve for x).
- *Rhizomatic codes*, marked by weaker semantic gravity and stronger semantic density (SG−, SD+). This can refer to abstracted problems or teaching scenarios or content, but with greater complexity or condensation of meanings. Think perhaps of a more advanced task where students need to use several interlinked concepts to construct a theorized discussion around an abstracted question or problem, such as using the concepts of power and influence to analyze the relationship between Iran and the United States post-2003.
- *Worldly codes*, marked by stronger semantic gravity and stronger semantic density (SG+, SD+). This can refer to problems that are firmly grounded in a recognizable or 'real' context, and that are relatively more complex. Think perhaps of a professional discipline, which presents students with layered problems common to the practice of the profession and asks them to draw on relevant tools (such as theories or other forms of principled knowledge) to solve these. An example might be a patient presenting with multiple symptoms that have a root cause that needs to be found and treated.
- *Prosaic codes*, marked by stronger semantic gravity and weaker semantic density (SG+, SD−). This can refer to problems that are both grounded in a real-world context or problem, but require relatively simplified approaches in finding a solution, such as how to change the dimensions of a dress pattern where the final garment will be too long in the arms or too tight around the waist.

These four codes represent different sets of organizing principles that underpin meaning-making and knowledge-building work in and across the disciplines. Our work as educators is to look at our discipline's organizing principles and characterize these as clearly as we can for ourselves first and then for our students, so that the means for successful achievement are accessible and open to them. You will probably move around the plane within and between assessment tasks and teaching examples, but ultimately you will have a sense of a deeper 'holding structure' for your discipline in terms of what kinds of meanings it values and cultivates or develops. This will guide how students need to be working to become literate in the ways of knowing, doing and being your discipline legitimates and values.

For example, in a worldly code such as Law (Clarence, 2017), where principled understandings are needed to solve complex real-world problems, not all teaching and assessment will stay solely in this quadrant. Early tasks in applied modules, such as criminal law or family law may begin in a prosaic code, with simpler theory and one-step application tasks, moving gradually towards more complex applications

and layers of theory more typical of the worldly code. Or, certain modules may be rather more abstracted, dealing with legal philosophy (jurisprudence) or legal interpretation, which may seem less grounded in the 'real world' and feel to students more like a rhizomatic code. These shifts around the semantic plane are quite legitimate and necessary for knowledge building, but to make these shifts with their lecturers and meet the underlying conditions for success, it is important that students see where they are on the plane, why, and how to shift towards their final destination.

Working out a semantic code and the implications of the kinds of knowledge you are working with and for what purposes is always a process that needs to be guided by your own context and data (course documents, teaching methods, etc.). It may not be the case in every university context that a module in practical pattern making will be, for argument's sake, a prosaic code (relatively simplified, applied knowledge) and a module in analytical philosophy will be a rhizomatic code (relatively complex, abstracted knowledge). Much would depend on how a module is taught and what choices are made in the curriculum and assessment design. But there are tendencies within disciplines that can make the semantic plane a useful guide in working out your own underlying codes or organizing principles. Once you can clarify these, you can consider what kinds of writing, reading, speaking and thinking work your students really need to be doing and how to guide and support them in doing it more successfully. The analysis of illustrative data in this next section will make this clearer, with specific reference to the thinking and reasoning students are expected to do in the first sub-section and then the writing up of their responses in the second. The examples I am analyzing are drawn from textbooks and my own research.

Waving and code shifting in assessment: thinking and writing

As this chapter has argued so far, learning and developing competence in disciplinary literacy practices needs to be a conscious, guided, incremental process. It needs to happen at every level of study because each level has different literacy demands, and the literacy practices are put to work for different knower development and knowledge building outcomes. One of the main ways in which students practise their developing literacies and build on them *cumulatively* – meaning they incorporate and add to learning from prior tasks – is through the work they do for assessment. This is often writing-based, even where tasks have also involved practical work such as a field or site visit, a practicum or lab work. The analysis in this section will focus on written assessment. There are two examples we will work through in two ways. First, the two examples will be mapped using semantic waves to consider thinking through the expectations and how to respond to these. Second, the same examples will be mapped using the semantic plane, first to consider the thinking processes with a different tool and then to consider how students may be expected to write a successful response.

Assessment

Task 1: Reasoning like a philosopher

You are driving a train/trolley. There is a split in the track ahead, and you can go only one of two ways. There is no third option, and you cannot stop the train/trolley. On one fork you can choose, three complete strangers are tied to the track and will be killed if you choose this path. On the other fork, a person you love deeply – partner, parent, best friend, child – is tied to the track and will be killed if you choose this path. You have to make a choice, and drive your train/trolley down one of the two paths. Which choice do you make: whom do you choose to kill? How do you reason through this choice and what principles would guide your actions?

This is a version of the Trolley Problem (Thomson, 1985), a well-known and fairly typical task students of a first-year Philosophy or Political Theory module may be asked to write a response to. I had to answer this task as a first-year student many years back and it continues to be a typical first-year exercise in many universities. It is a fictional problem and so is abstracted from a real context students would be expected to actually experience, even though it is an example used to practice the application of theory. If we were drawing this onto a semantic wave, we would start a little higher than SG+, then. This is a relatively simple explanation of a scenario, so it has relatively weaker semantic density (SD-). So, we are at point 'a' on our semantic profile (Figure 5.3).

However, the expectation of this task is not to make a common-sense or one line response. If you look at the last two lines, the lecturer is asking students to *reason*, and to use *principles* from the discipline to do so. This implies that a common sense or simplistic response without recourse to principled or theoretical knowledge would receive a poor mark. We are thus pushing students up the wave

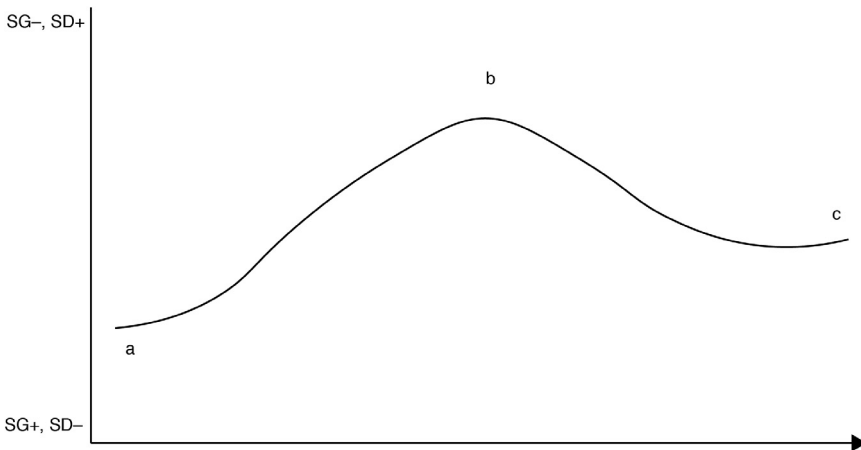


FIGURE 5.3 Semantic wave for the Trolley Problem, Philosophy

towards point 'b', where they would need to look to the theory of the discipline and its expected literacy practices of logical, principled reasoning and argumentation to not just make a choice, but provide clear reasons for that choice (SG-, SD+). Ideally, their answer would combine information from the example and selected theory to evidence a reasoned response, which might be somewhere around point 'c', with weakened semantic gravity relative to the original problem but strengthened relative to the theory, and with stronger semantic density than the original problem but weaker relative to the theory.

If you could take your students through the task using a version of this wave, they would be able to see what you would expect of their response if you were this lecturer: neither only a theoretical nor only a contextual answer, but a combination of both to evidence the required literacy practice, theorized reasoning.⁴ You could talk them through this example without the explicit use of LCT. Instead of 'SG' and 'SD' and strengthening and weakening, you could simply explain the difference between the context represented in the example and theory and how one is simpler and less complex than the other. But what the discipline requires in the end is not simple thinking and simplistic responses to problems like these or reproduction of abstracted principles/theory. The discipline values reasoned responses, carefully substantiated, logical arguments. These are the literacy practices valued by the social community of knowers they are joining. This is why 'c' is where they need to be aiming – a theorized, reasoned response that uses but does not reproduce theory, that creates an interpretation of the context or problem rather than re-describing it.

Task 2: Reasoning like a Physicist

The example here comes from a textbook and is a Mechanics problem (King & Regev, 1997).

A police officer on a motorcycle chases a speeding car on a straight highway. The car's speed is constant at $v_c = 120$ km/h, and the officer is a distance of $d = 500$ m behind it when she starts the chase with velocity $v_p = 180$ km/h. What is the police officer's speed relative to the car? How long will it take her to catch up with it?

If you were this Physics lecturer, how would you expect your students to solve this problem step-by-step? How would you better be able to guide their thinking process using a wave as a visual aid? The literacy practices valued here, following Honjiswa Conana's work, are not just to use the right mathematics or equations, but also to: visualize the problem; work out a logical solution using the theoretical knowledge of velocity (v) and distance (d) and how they function relative to one another; and then work out the right equations which would enable you to answer the two questions. As in Task 1, this task is asking students to use theory to solve a problem and this problem is tacitly asking them to think as a physicist would to find the solution (cf. Conana, Marshall, & Case, 2016).

To begin this thinking process students should unpack the problem in four stages: first to *verbally* represent the problem, (reading, comprehending and explaining what the problem is); second, *pictorially* representing it, (drawing a simple picture of the car, the bike and the distance between them). Third, students then need to create a *physical* representation, perhaps using a force diagram that would help them to identify the relevant forces acting in the system. Finally, they reach a *mathematical* representation where they are able to express the solution in the form of an accurate equation and provide an answer (see Conana, et al., 2016). These stages may not be obvious to undergraduate students, especially in first-year modules where they may be expecting high school physics knowledge to mirror university knowledge. But because university physics expects students to *become* physicists and not just to have physics knowledge and know how to perform equations, the literacy demands are quite different and need to be made as explicit as possible so that students can adjust. A possible wave for guiding the process of responding to this task could look something like Figure 5.4.

As can be seen quite quickly from these two contrasting examples, the visual tool of the semantic wave can help us see how different disciplinary ways of thinking require different forms of movement between more abstracted and more contextualized meanings and practices. An extra layer to such visual representation is also possible by representing tasks on a semantic plane. The plane is valuable because it can show us not only where semantic gravity and semantic density are inversely stronger and weaker (prosaic codes and rhizomatic codes) but also where they are both weaker (rarefied codes) and both stronger (worldly codes). This offers us an even richer set of tools for analyzing and making sense of our own practices.

Both of these tasks, then, could also be represented on a semantic plane, showing students a different approach to drawing on different kinds of disciplinary

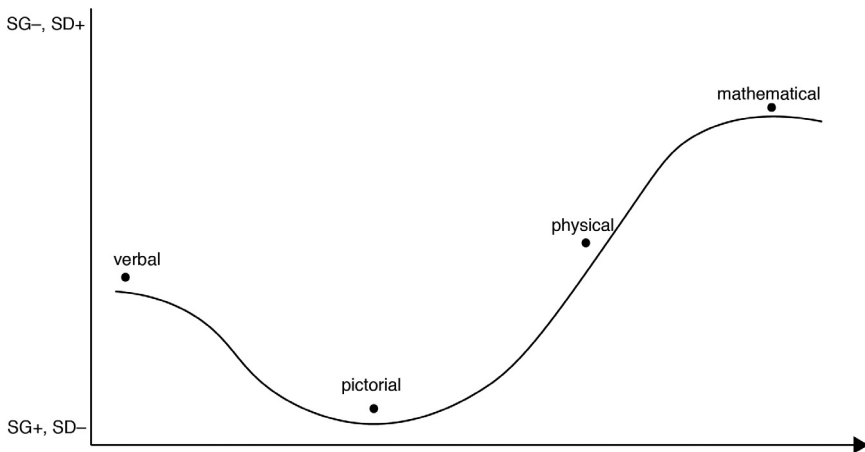


FIGURE 5.4 Semantic wave for the Mechanics task, Physics

knowledge to solve these problems. In the first instance, the Trolley Problem in Task 1, students start with the written problem in front of them and put themselves into the train in their heads, imagining themselves having to make this choice. There is relatively stronger semantic gravity here because this problem is described using a recognizable context to some extent (even though the actual problem is not one students are really likely to confront in that exact form). But the problem represents a moral and ethical dilemma, which is a tacit step in the problem that students need to grasp because this will lead them to the principled knowledge they need to draw on to solve it. This weakens the semantic gravity because 'moral and ethical dilemma' is moving towards abstraction from the specifics of this problem.

In this problem, the theory used could be Utilitarianism.⁵ Students need to read either course notes or published papers or both, consider what to select from the theory to solve this problem, and formulate a reasoned answer they can substantiate or justify. This moves them, then, from a prosaic code (SG+, SD-) at the start, where meanings are relatively concrete (SG+) and relatively simple (SD-), to a rarefied code (SG-, SD-), where the meanings are still simpler, but become more abstracted (ethical or moral dilemma). Both of these moves relate to being at point 'a' in Figure 5.3. From here, the students are expected to move into a rhizomatic code (SG-, SD+) or point 'b' in Figure 5.3, where they combine a more complex understanding of the selected theory with the imagined dilemma to reason a theorized response (Figure 5.5) or point 'c'. In reaching the final answer, I would argue that they probably would move to weaken the semantic gravity (SG) of the theory because they are moving away from pure theory towards a theorized response to the problem, where theory is explained and applied rather than given as is. This is why I have indicated a weakening of the semantic gravity within the quadrant for the rhizomatic code, which Philosophy as a discipline tends to represent.

Task 2, the Mechanics problem, can also be represented on the plane. The verbal representation of the problem, relative to the principled or theorized mathematical response, represents stronger semantic gravity and weaker semantic density (SG+, SD-). But it is still an abstracted problem because students have to visualize and imagine it, first in a simple picture and then in a more theoretical diagram before working out the mathematical equation and answer. I would argue, then, that the problem begins somewhere between a prosaic code and a rarefied code, before shifting students into a rhizomatic code where they need to consider Mechanics principles around velocity (v) to work out the answer, given the additional variables such as distance (d). The answer, represented as an equation, has relatively weaker semantic gravity and stronger semantic density, because it is providing a theorized response to the problem, which is an abstracted construct to begin with. Figure 5.6 presents my sense of how the semantic plane shifts for this task might look.

As with semantic waves, you could draw a less theoretical version of this plane for your students on a whiteboard or on a PowerPoint slide and talk them through what kinds of meanings are made in each quadrant, rather than naming the codes.

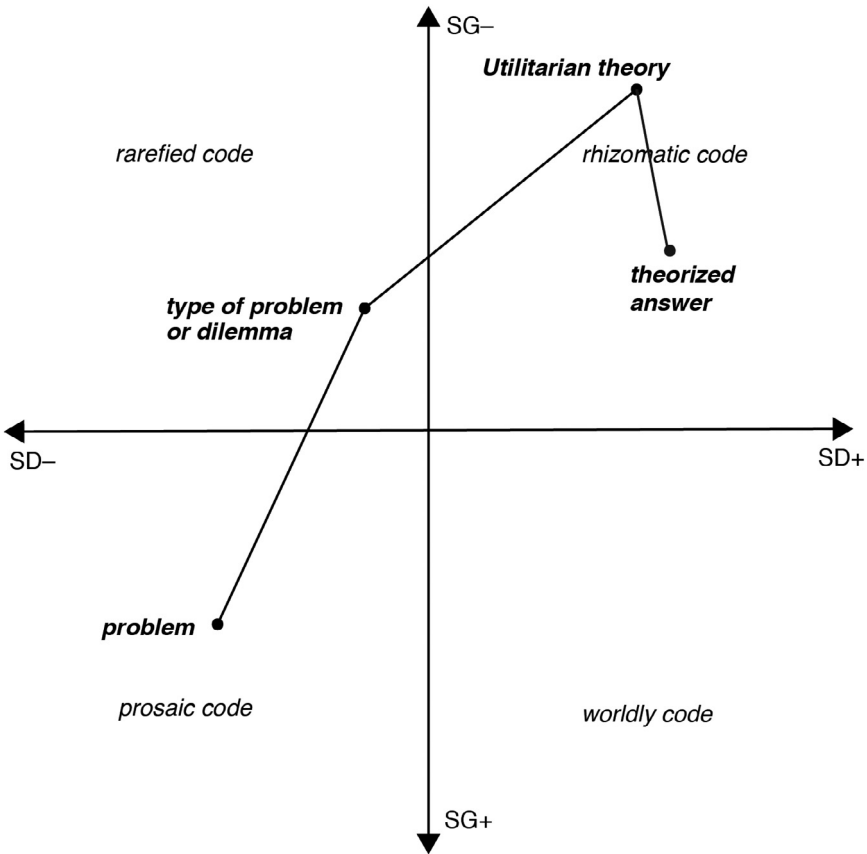


FIGURE 5.5 Semantic plane shifts for Task 1, Philosophy

For example, you could re-describe the prosaic code for your specific task, within your disciplinary context, as meanings that are not very theoretical or abstract and quite connected to a specific context or problem. You could actually work through one or two sample problems, showing students each move you would make in solving these problems and how the meanings change as they move towards a correct or acceptable answer. Making these moves more explicit and doing this repeatedly with new and different tasks at each level of study can make the relevant and valued literacy practices students need to master, as well as the kinds of reasoning and writing they need to do, clearer.

Writing

Responses to these kinds of tasks often need to be presented for assessment in written form, whether in words or numbers or both. To construct a successful response,

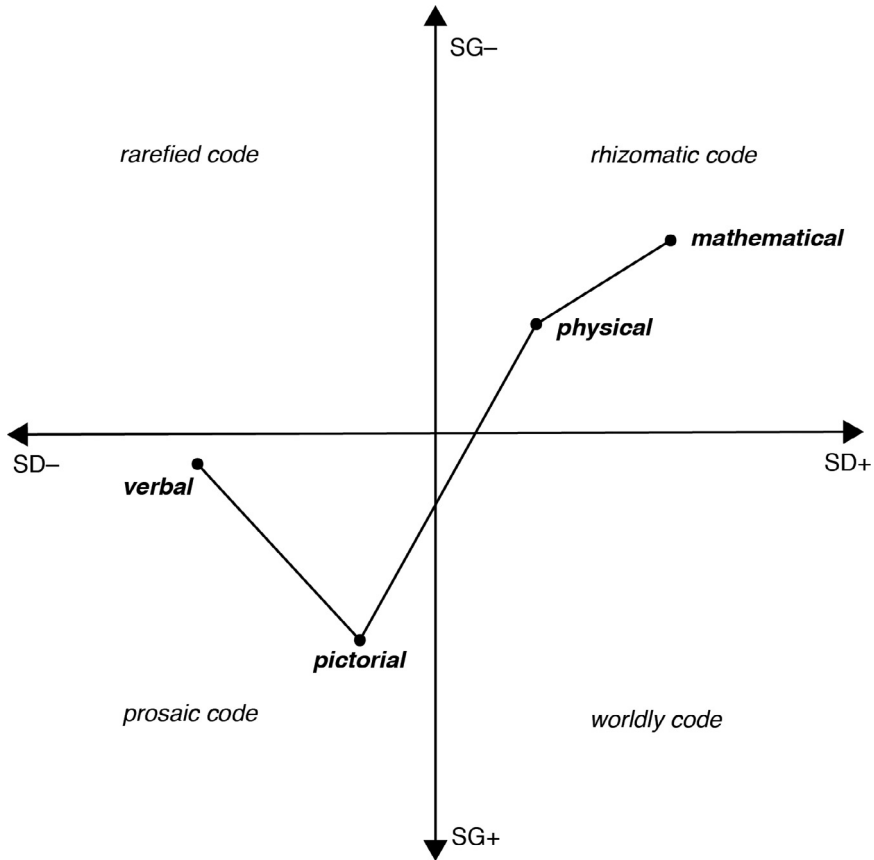


FIGURE 5.6 Semantic plane shifts for Task 2, Physics

students need additional guidance, over and above working out how to reason or think through their response: they need to know how to write it. This means they need to know the genres or forms and styles of text that the discipline as a social community uses to communicate meaning. Genres can be understood as texts that have a shared social purpose and an agreed-upon style and form, such as a research report in the natural sciences, a textual analysis in literary studies, a case summary in social work. There are certain patterns or 'prototypes' that disciplines cohere around in creating these texts that have to do with how meanings are made through the use of specific words and phrases, paragraphing, syntax (sentence structure), and organization of ideas into different forms of claims and evidence. Students are unlikely to work this all out on their own or, as argued earlier, unlikely to acquire a nuanced, in-depth understanding of discipline-specific genres and writing rules from an extra-disciplinary writing course. This means that lecturers in the disciplines, working on their own or in partnership with academic literacy or academic development specialists, need to teach students how to write about the knowledge and meanings that they need to master.

The same two tasks will be used to follow through each to a conclusion of sorts, from thinking to writing. The semantic wave alone will be used to represent these tasks visually.

Task 1: Writing like a philosopher

In answering this task, students need to make an argument. In many of the social sciences and humanities disciplines, written argumentation in writing is a core literacy practice students enact over and over through multiple tasks, even though there are different kinds of arguments made across multiple genres. This is, thus, an important practice to master in becoming a knower in this community of practice, and an important one to teach explicitly rather than assuming students will know what kind of argument they are making in different genres without this being signalled.

In Philosophy, lecturers set problems for students, like the Trolley Problem seen earlier, that are not designed to have 'answers'. They are designed, rather, to provoke intellectual discussion and critical thinking, to help students realize that moral and ethical dilemmas are difficult to resolve (see Panahi, 2016) What students need to do with their writing, then, is reflect a logical reasoning and thinking process, rather than relate 'the answer'. This is an important distinction for those assessing the writing (their lecturers and tutors).

Lecturers could start, then, with the task itself: the first step in writing the response would be to re-describe the problem being discussed to show that students understand the problem. It is not just who to kill in relation to what they mean to the student (stranger or loved one). They need to show that they understand that this is a moral and ethical dilemma and indicate what kind of dilemma they think it is. This would be the Introduction to the written response, where you would likely expect these details to be explained clearly and the essay set out. The response then needs to begin to 'unpack' and set out the steps of discussing the problem and attempting to reach a resolution of some kind, weaving together the theory and details from the problem itself. In this case, they could solve it by employing Utilitarian theory, which considers what action will produce the greatest good for the greatest number. This weaving may take the form of 2 or 3 paragraphs that develop each stage of the argument. Perhaps, first the issue of whether the driver knows the people on the tracks or not can be considered in terms of the theory (3 people versus 1; stranger versus a loved one) ('P1' in Figure 5.7). Then the answer could move to consider the impact of death on those whose lives are connected to the people on the tracks (P2), and perhaps the impact more broadly on the social and economic context in which these people live. Each paragraph would need to wave between part of the context and part of the theory (P3) to create a series of connect claims that act as grounds for the conclusion.

The essay could then conclude with a summary of the principle of Utilitarianism and how it has aided in understanding and unpacking this specific problem. The student may close the argument by providing a tentative answer based on the reasoning laid forth in the prior paragraphs. This is one possible way of thinking

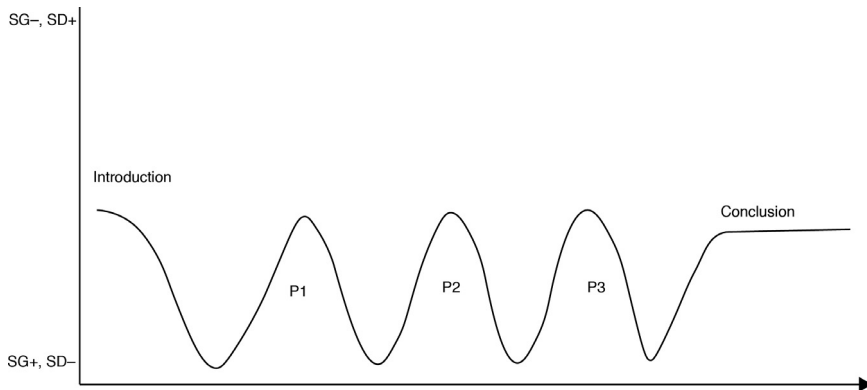


FIGURE 5.7 Semantic wave for a written response to Task 1, Philosophy

through an acceptable response to a problem scenario question. In reading this you may be able to start thinking about typical tasks your students need to think and write responses to and how you might break these down into clearer steps.

Task 2: Writing like a physicist

In looking at the writing for Task 2, the kind of wave might depend on whether you asked students to include their diagrams in their assessment submissions or not. You may well do this if you want to see them working through their reasoning processes, with the picture, physical diagram and the mathematical equations and answers. The writing work here may well mirror the thinking work (Figure 5.4) quite closely. Students could begin with briefly re-describing the problem – what do we need to know? Students could then move on to drawing the basic pictorial representation of the problem before waving ‘up’ to a theorized physical representation of the problem that shows their understanding of velocity and distance and how the two are in relationship between the car and the bike. The response to the task may then end with the equations, which would contain the answers to the two questions, and may include words (i.e., a sentence to express the final answer) as well as the obvious numbers and symbolic mathematical notation (e.g., v_p and v_c).

Students can be shown exemplars of successful responses to such a task and can be taken step-by-step through the moves they would need to make to mimic the format and organization of an appropriate answer. This would make it more possible for them to actually see what an appropriate response looks and sounds like and give them the means to break the present task down into steps they can follow and connect up in their own response. As with Task 1, if this guidance is repeated over and over and adapted for the level of learning (i.e., junior and senior students), the valued literacy practices of the discipline and the means to develop and master them will become clearer and more knowable to all students. Using the semantic wave I have drawn for Task 1 as inspiration, perhaps try and create your

own semantic wave for this Task. Or choose a task from your own course that you could break down and work out with students using this tool. Consider, especially, how you can do this without all the technical LCT terms and notation so that students are not put off or confused by this. You are not teaching them LCT; you are teaching them a meaning-making tool and process.

If you teach in a science-oriented discipline, some of this may seem self-evident and may echo work you and your colleagues are already doing. If not, however, seeing how different kinds of knowledge specialize and require different kinds of literacy practices (as acts of knowledge and meaning-making), may offer useful insights into the ways in which your own discipline does this.

Conclusion

This chapter has explored the ways in which students working in disciplines with particular literacy practices – encompassing knowledge and ways of knowing, being and doing – need to be shown how to read, write, think, speak and act by those who are specialists in these practices. Countering both deficit thinking and the false binary between ‘content’ and ‘skills’, this chapter has shown you how to work out the organizing principles of your assessment and teaching tasks that implicate and develop students’ literacies. Building on this knowledge, the chapter then looked at different kinds of literacy tasks in the natural science and humanities, unpacking the thinking, writing and meaning-making process that may go into responding to these tasks successfully.

Literacy practices – and successful responses to these – look different in different disciplines, depending on the kinds of knowledge that matter and the ways of knowing that are required at different levels of study. This means that generic or extra-disciplinary modules or support that does not understand or account for disciplinary knowledge and knowing may leave students alone with too much of the work of making successful meanings. Students cannot, on their own and without visible guidance, be expected to know how to build knowledge in disciplines in which they are novice knowers. Even as students become more knowledgeable and able, guidance will be needed as they transition into more demanding levels of study, such as from undergraduate to post-graduate study, and between levels, such as from first year to second year and from masters to doctoral level. The literacy and knowledge-making demands change as the levels of study advance and expectations of students’ mastery of disciplinary literacies shift.

If we leave too much of the meaning-making work to students on their own, especially in high-stakes reading and writing tasks that translate to passing or failing, we will compromise student success. The thinking, reading, writing and creating processes students need to use to access and successfully create their own disciplinary meanings must be taught explicitly and learned through repeated practice and feedback. If we assume that students already possess what they need to succeed in higher education when they arrive in the first year, and many do not succeed as expected, we assume that there is a deficit in their knowledge or skills. What we

do not see, instead, is a highly specialized system that has blind spots and gaps that need to be bridged in teaching and learning. We do not see the role higher education teaching and assessment can and must play in truly widening and deepening access to new university knowledge and ways of knowing, doing and being for all students.

In seeing the inequities in the current system and our possible roles in challenging and changing these, we can see that disciplines within the university are steeped in their own sets of values, behaviours, ways of being and knowing, writing and reading, thinking and debating (see Gee, 2015). There are bodies of knowledge that are accepted as 'canon'. To those who have become knowers in this space successfully, much of this is no longer as strange as it would be to a novice. It is difficult, once you have knowledge and know how to write or speak or act, to go back and not know. This can make anticipating students' learning struggles difficult, especially if you have not experienced similar home and school environments to theirs. But to see these gaps and struggles and mitigate them with more conscious, nimble teaching and assessment, we need to do just this: place ourselves in the shoes of students as novice knowers, ask them more and different questions about what they do and do not see and understand, and begin to bridge these gaps where we can in more visible ways. We can, more effectively and visibly, begin to 'wave' and link different parts of the whole together, showing students how to do the same in the work they create and produce.

Although the chapter has used a theorized and somewhat technical language to discover and characterize semantic waves and semantic planes, this language of discovery can be for you as the educator, rather than for your students. You can use these tools to work out your own expectations for how students need to think about and write responses to assessment, to characterize your discipline's valued literacy practices. This can then be translated into a less technical, but still theoretically grounded, discussion with your students about the what, how and why of the assessment tasks, literacy practices and expectations they need to work with. This theorized way of thinking and drawing your ways of making meaning can therefore be empowering for both you and your students.

Questions for further reflection and action

- How would you describe the literacy practices that are important for the creation and communication of meanings in your discipline? Look at the examples in this chapter again and think beyond 'reading' or 'writing'; think about how should students read – what should they be getting out of their reading and how can they be shown this? What kinds of texts do students need to create and what purpose do they have in knowledge and meaning-making?
- In writing responses to typical tasks, what steps do students need to follow and how is the knowledge communicated through structure, organization, phrasing, use of specific conceptual terms, and so on? Think about creating a set of basic guidelines you can use to take students through assessment tasks with an emphasis on the literacies you are asking them to acquire and develop and

how you expect them to do that work. Here you could consider collaboration and conversations with staff in your university working in a writing centre, a teaching and learning development unit, or a programme or unit focused on English for Academic Purposes (EAP) if you have this provision.

- How do you communicate expectations around assessment to students? Do you only tell students *what* they need to achieve? How far do you also offer insights into *how* and *why*? Consider how, for example, drawing on semantic waves might help you make this clearer for students. Are you focused on the marks assigned to each part of the task, which will focus your students on getting as many of those marks as they can? Or, are you focused on the learning they need to evidence and the means with which they need to construct an accurate or appropriate task response? Many lecturers I know are frustrated with students’ preoccupation with what is perceived as getting marks over engaging in the more fundamental purposes of disciplinary learning. But if we also focus on marks when we talk to students about assessment, how will they see the deeper purposes of disciplinary learning as valuable and necessary to focus on instead?

We move next to the final chapter in the book, which takes us into feedback and reflective evaluation as a further part of assessment practice, to complete the learning cycle started with the curriculum in Chapter 2. Chapter 6 will bring together aspects of Specialization and Semantics to provide a theorized way of thinking about how to evaluate students and how we ask them to evaluate us, and in both cases what we do with the feedback to further enable successful learning and growth.

Notes

- 1 Brenda Leibowitz’s paper offers an in-depth and nuanced look at different factors, including cultural and personal issues that influence or shape literacy practices.
- 2 This format refers to the ‘Introduction–Body–Conclusion’ form of essay writing that many standalone literacy or writing modules tend to use. It refers to creating a basic essay by having: an Introduction with background information, thesis statement and paper outline; three ‘Body’ paragraphs that each have topic and supporting sentences to develop ideas; and a Conclusion that restates the thesis and summarizes the main points in the Body. This can be a useful starting point, but many students are not shown how to adapt this basic form using disciplinary knowledge, language and forms of argumentation, which is what essay writing is really for. Many may get stuck in the basics without a clear sense of how to improve or move forward which limits their capacity to improve their learning and their results or marks.
- 3 If you would like to follow up with further reading on this issue of language and literacy, I can recommend two of the books in the reference list: Brian Street’s *Social Literacies* (2014) and Theresa Lillis’s *Student Writing* (2001). You could also search for David Barton and Mary Hamilton’s work, as well as the work of Cheryl Geisler, Hilary Janks and Shirley Brice Heath.
- 4 If you are interested in learning more, you could look at Eszter Szenes and Namali Tilakaratna’s work for examples from Business Studies and Social Work as well.

- 5 In brief, Utilitarianism argues that, in the face of moral and ethical dilemmas, the right ethical choice will produce the greatest good for the greatest number of people. The right action here is understood in terms of the consequences it will produce. See <https://plato.stanford.edu/entries/utilitarianism-history/> for a basic overview in more detail.

References

- Blackie, M. A. (2014). Creating semantic waves: Using Legitimation Code Theory as a tool to aid the teaching of chemistry. *Chemistry Education Research and Practice*, 15(4), 462–469.
- Boquet, E. H. (1999). 'Our little secret': A history of writing centers, pre-to post-open admissions. *College Composition and Communication*, 50(3), 463–482.
- Boud, D., & Falchikov, N. 2006. Aligning assessment with long-term learning. *Assessment & Evaluation in Higher Education*, 31(4), 399–413.
- Boughey, C. (2013). What are we thinking of? A critical overview of approaches to developing academic literacy in South African higher education. *Journal for Language Teaching= Ijenali Yekufundzisa Lulwimi= Tydskrif vir Taalonderrig*, 47(2), 25–41.
- Boughey, C., & Niven, P. (2012). The emergence of research in the South African academic development movement. *Higher Education Research & Development*, 31(5), 641–653.
- Boughey, C., & McKenna, S. (2016). Academic literacy and the decontextualised learner. *Critical Studies in Teaching and Learning*, 4(2), 1–9.
- Carter, S. (2006). Redefining literacy as a social practice. *Journal of Basic Writing*, 25(2), 94–125.
- Case, J. M. (2013). *Researching student learning in higher education: A social realist approach*. London: Routledge.
- Clarence, S. (2017). 'War of the worldly codes': Articulating the gap between legal academia and practice. Paper presented at the Second International Legitimation Code Theory Conference, Sydney, Australia, 3–7 July 2017.
- Clarence, S., & Dison, L. (Eds.). (2017). *Writing centres in higher education: Working in and across the disciplines*. Stellenbosch: SUNPress.
- Conana, H., Marshall, D., & Case, J. M. (2016). Exploring pedagogical possibilities for transformative approaches to academic literacies in undergraduate Physics. *Critical Studies in Teaching and Learning*, 4(2), 28–44.
- Dison, L., & Clarence, S. (2017). Introduction. In S. Clarence & L. Dison (Eds.), *Writing centres in higher education: Working in and across the disciplines* (pp. 5–16). Stellenbosch: SUNPress.
- Elton, L. (2010). Academic writing and tacit knowledge. *Teaching in Higher Education*, 15(2), 151–160.
- Gee, J. P. (2015). *Social linguistics and literacies: Ideology in discourses*. 5th edition. Abingdon: Routledge.
- Harrison, R., Soars, L., & Soars, J. (2015). *Headway academic skills: Reading, writing, and study skills: Student's book*. Oxford: Oxford University Press.
- Hathaway, J. (2015). Developing that voice: Locating academic writing tuition in the mainstream of higher education. *Teaching in Higher Education*, 20(5), 506–517.
- Jacobs, C. (2005). On being an insider on the outside: New spaces for integrating academic literacies. *Teaching in Higher Education*, 10(4), 475–487.
- Jacobs, C. (2007). Towards a critical understanding of the teaching of discipline-specific academic literacies: Making the tacit explicit. *Journal of Education*, 41(1), 59–81.
- Jacobs, C. (2019). Keynote address, Annual HELTASA Conference, 27–29 November 2019, Rhodes University, South Africa. <https://www.youtube.com/watch?v=BUXHGCXrOMc&t=2249s>.

- King, A. R., & Regev, O. (1997). *Physics with answers: 500 problems and solutions*. Cambridge: Cambridge University Press.
- Leibowitz, B. (2004). Becoming academically literate in South Africa: Lessons from student accounts for policymakers and educators. *Language and Education*, 18(1), 35–52.
- Lillis, T.M. (2001). *Student writing: Access, regulation, desire*. London: Routledge.
- Lillis, T. M., & Scott, M. (2007). Defining academic literacies research: Issues of epistemology, ideology and strategy. *Journal of Applied Linguistics*, 4(1), 5–32.
- Lillis, T. M., Harrington, K., Lea, M., & Mitchell, S. (Eds.). 2016. *Working with academic literacies: Case studies towards transformative practice*. Colorado: The WAC Clearinghouse/Parlor Press.
- Maton, K. (2009). Cumulative and segmented learning: Exploring the role of curriculum structures in knowledge-building. *British Journal of Sociology of Education*, 30(1), 43–57.
- Maton, K. (2013). Making semantic waves: A key to cumulative knowledge-building. *Linguistics and Education*, 24(1), 8–22.
- Maton, K. (2014a). A TALL order? Legitimation Code Theory for academic language and learning. *Journal of Academic Language and Learning*, 8(3), A34–A48.
- Maton, K. (2014b). *Knowledge and knowers: Towards a realist theory of education*. London: Routledge.
- Maton, K. (2015). Legitimation Code Theory: Building knowledge about knowledge building. In K. Maton, S. Hood & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 1–23). London: Routledge.
- McKenna, S. (2004). The intersection between academic literacies and student identities: Research in higher education. *South African Journal of Higher Education*, 18(3), 269–280.
- Mitchell, S. (2010). Now you don't see it; now you do: Writing made visible in the university. *Arts and Humanities in Higher Education*, 9(2), 133–148.
- Mohamedbhai, G. (2014). Massification in higher education institutions in Africa: Causes, consequences and responses. *International Journal of African Higher Education*, 1(1), 59–83.
- Panahi, O. (2016). Could there be a solution to the trolley problem? *Philosophy Now*. http://philosophynow.org/issues/116/Could_There_Be_A_Solution_To_The_Trolley_Problem#:~:text=Like%20most%20philosophical%20problems%2C%20the,as%20moral%20agents%20are%20recognized.
- Philpot, S. (2011). *Headway academic skills 2. Reading, writing, and study skills. Student's book*. Oxford: Oxford University Press.
- Smit, R. (2012). Towards a clearer understanding of student disadvantage in higher education: Problematising deficit thinking. *Higher Education Research & Development*, 31(3), 369–380.
- Street, B. V. (2014). *Social literacies: Critical approaches to literacy in development, ethnography and education*. London: Routledge.
- Szenes, E., Tilakaratna, N., & Maton, K. (2015). The knowledge practices of critical thinking. In M. Davies & R. Barnett (Eds.), *The Palgrave handbook of critical thinking in higher education* (pp. 573–591). New York: Palgrave Macmillan.
- Thesen, L., & van Pletzen, E. (Eds.). (2006). *Academic literacy and the languages of change*. London: A&C Black.
- Thomson, J. J. (1985). The trolley problem. *The Yale Law Journal*, 94(6), 1395–1415.
- Wingate, U. (2006). Doing away with 'study skills'. *Teaching in Higher Education*, 11(4), 457–469.
- Zimmerman, B. J. (1989). A social cognitive view of self-regulated academic learning. *Journal of Educational Psychology*, 81(3), 329–339.

6

LEARNING THROUGH REFLECTION

Sustainable feedback and evaluation practices

Introduction

The acts of teaching and learning are part of a process or cycle. We begin, perhaps, with curriculum design and then move into a classroom to teach and engage with students, assessing their work on an ongoing basis through different forms of tasks, assignments and examinations. At various points during this process we may pause to reflect, listen to feedback, and make changes or adjustments. Curriculum design, teaching, assessment, and evaluation are all part of the cycle or process of enabling successful learning. This cycle is iterative, of course, as we repeat it over and over for all of the modules and courses we design and teach. The aim for lecturers and students should be *cumulative* growth and development through these cycles, with each one building *knowledge* and developing the related *ways of knowing, doing and being*. This aim implies that we need to gather information on what we are doing and learning in each cycle to inform future action and longer-term learning. The basis for this is *reflection*, a critical act necessary for sustainable learning and change. For students, the basis for reflection is feedback-on-assessment (hereafter ‘feedback’) from lecturers, tutors and sometimes peers on their formal and informal assessment tasks. The basis for lecturers is feedback-through-evaluation (hereafter ‘evaluation’) from students, usually in the form of course evaluations.

This chapter closes the cycle begun in Chapter 2 by considering the role of feedback and evaluation in informing and shaping ongoing learning and development. Specifically, the chapter will offer a theorized approach to giving feedback and designing evaluation processes in ways that enable more specialized, contextually relevant approaches to this part of the learning process, rather than generic ones. To do this, the chapter will use *the specialization plane* from Legitimation Code Theory’s (LCT) dimension of Specialization and *semantic waves* from the dimension of Semantics. Using these two theoretical tools, we can consider how to change or

adjust current feedback and evaluation practices to better align these with the specialization of our students and ourselves as disciplinary knowers on the one hand, and how to offer and gather feedback that can inform and shape current and future learning and teaching on the other. In other words, this chapter will look at how we specialize learning and teaching more overtly through the feedback we offer students and their evaluation of our teaching, and how we can do this in cumulative, fit-for-purpose ways.

The main point or purpose of feedback and evaluation is, arguably, better future practice – writing, thinking, reading, creating, teaching and so on. We give students feedback that they may learn about what they did well and where they went wrong, and make necessary adjustments and improvements (Boud, 2007). We ask students to assess us through course evaluations to find out what was effective in the teaching and learning and what was not that we might make improvements and adjustments in updating and changing aspects of the modules we teach (Edström, 2008). All of this thinking, learning and change implies an expectation of reflection, understood here as identifying, considering and solving a problem that is both relevant to the present learning and/or teaching context and future contexts or problems (Loughran, 2002). Reflection is a crucial, although often tacit, aspect of any learning process. Almost every task we complete as lecturers or students requires some form of reflection. For feedback to students, an example might be considering the nature of the problem (e.g., no clear argument in the essay; poor presentation of results) and looking for context-specific rather than generic solutions (e.g., what is ‘argument’ in this discipline and how do I need to show that in my writing? How are results supposed to be presented?). In the case of evaluation, an example might be having students comment that they struggle – in class and course materials – to see connections between knowledge they are learning and assessments that ask them to use this knowledge to provide responses. This may then prompt you to think about what the links are and how to make them more apparent to students in future iterations of this module as well as other modules where a similar problem may be experienced.

In certain disciplines, reflective writing tasks have brought the practice of reflecting on learning and knowledge more to the fore, especially those that integrate workplace learning into the curriculum, such as Social Work, Education, and Business Studies (see Kirk, 2017; Tilakaratna & Szenes, 2020). These kinds of tasks ask students to link a disciplinary issue with both theory and their own insights and perhaps also their own experiences or practices (such as observation in Social Work or a teaching practicum in Education). This may be termed the creation of applied knowledge and reflection is a key part of the ongoing learning process implied here (see Gamble, 2009). The concept of reflection is also embedded in academic staff development and teaching practice, with many books and materials available advising lecturers on different ways in which they can learn to reflect on their own teaching practice and student evaluations with the goal of improving their curriculum, classroom teaching and assessment approaches. However, how reflection needs to happen to enable specialized learning and development is not always

discussed clearly, especially as regards using reflection to engender more critical discipline-specific insights into learning and practice. In many contexts, students and also lecturers are told to ‘reflect’ without contextualized or clear guidance on what forms that reflective work might take, how it might be communicated verbally or in writing, and what the underlying learning or knowledge-related purposes of that reflective work are within the arguments they are making (see also Kirk, 2017).

When we reflect, we are reflecting on something specific for a specific learning purpose. We are looking to solve specific problems or consider particular performances or ‘doings’, rather than general problems or ‘doings’ (Gamble, 2009). This means, then, that if reflection is to be a useful part of learning to be a more successful student or a more successful lecturer, it needs to be a specialized rather than generic aspect of the overall learning process. Yet the dominant discourses around both feedback and evaluation still reference compliance with set standards (Boud, 2007), which can push the specialized learning purposes of these dimensions of the learning and teaching cycle into the background, especially in university contexts where ‘quality’ is predominantly understood as meeting specified standards and creating a value-for-money university experience (Green, 1994). This may lead to generic approaches to feedback-giving and evaluation design, such as general ‘tips and tricks’. For example, advice for lecturers on giving feedback that focuses on writing encouraging comments to boost student morale, rather than on how to write clear comments that prompt students to think further about what they are learning and writing about and how they are doing this successfully (or not). While this kind of advice has its place, it can tend too far towards the generic and limit the role of feedback in further specializing knowledge and knowers in the disciplines. What we need is a way to complement and further situate and make sense of this kind of advice within a specialized context, such as an academic discipline.

This chapter argues that feedback and evaluation has a critical role to play in further understanding, analyzing and improving teaching and learning practices. This means that in offering feedback and designing evaluation events (e.g., an online form) we need to focus less on the generic aspects of learning and far more on specialized disciplinary knowledge and ways of knowing, doing and being. Both the feedback we offer students and the evaluation we receive should consider both our discipline’s underlying organizing principles or deeper learning goals and the connections between the specific problem context being reflected on presently and further learning beyond or outside of that context. In this chapter, the theory used to support the argument comes from both Specialization, specifically *the specialization plane*, and Semantics, specifically *semantic waves*.

As assessment and evaluation are ‘drivers’ of learning, in the sense that they focus us on what we most need to learn to get the results we desire in the assessment and evaluation process (see Boud & Falchikov, 2006), we will move next to consider some of the main debates in the field. Then, the chapter will explain the two theoretical ‘tools’ from LCT and use them to analyze data that illustrates possible ways of specializing your own feedback and evaluation practice.

Assessment, evaluation and quality in higher education

Assessment of and assessment for learning

Assessment is a tangible process that creates a piece of physical work that can be 'marked', and about which students can receive feedback. This tangible process can be enacted in writing, speaking, drawing, creating or performing (as in a stage performance, a dance piece, a teaching practicum and so on). Assessment is the core activity around which teaching and learning is organized in higher education. It drives student learning in that successful achievement is realized in how well students perform in assessment tasks; all learning and teaching moves students towards providing formal and informal evidence of their ability know, be and do in ways that are valued by their disciplinary community of practice (Boud & Falchikov, 2006). Assessment also focuses students' attention: what do they need to know or learn or do to get good results in the assessment? One of the most visible aspects of the learning and teaching cycle is the 'high stakes' tasks that need to be completed to pass a module as part of a year of study, leading ultimately to the awarding of a degree or diploma. These tasks are high stakes for students because poor marks and performance may mean another year at university, another registration for the same module, and all the emotional, financial and intellectual implications of that.

Green (1994) argues that, in the main, universities have two core missions: to produce graduates who can use their knowledge and ways of knowing, doing and being to contribute to economic and social development, and to contribute to knowledge-building through producing specialized research. The first mission can be connected to assessment of learning, which puts certification ahead of other purposes of assessment. Have students passed or failed, can they do, know and be what is required or not? This is *summative assessment*, where the focus of assessment is a mark signalling the level of the student's success or failure; where feedback is given it tends to focus on justifying the mark.

The second mission can be connected to assessment for learning, an approach that puts the emphasis on the process of learning rather than its products (i.e., completed tasks). Assessment *for* learning focuses on creating tasks that can enable students to make mistakes or get things wrong, receive constructive feedback aimed at helping them to understand what they need to work on to improve, and offers further opportunities for practice. This is *formative assessment* planning and feedback, where the focus is on shaping and informing further learning based on enabling critical reflection on current tasks.

Both of these missions are important, but in the current era of neoliberalization of higher education, universities are pushed by governments to enhance the employability of graduates through increasing their focus on educating for skills and certification (see Chapter 2) and quality is cast as enabling individuals to obtain personal success. In this context, assessment of learning as a means of gaining certification and summative evaluation of success (or failure) moves to the fore.

This shapes university assessment and evaluation policies and forms that in turn influence the agency and autonomy of lecturers in terms of how they conceive of the role of feedback within the learning and teaching cycle.

In particular, if we underpin feedback with the purpose of assessing students to show compliance with the standards set for certification, we are likely to be drawn to more generic approaches to these practices, such as basic rubrics and broad-based comments on submitted work. I am not arguing here that rubrics that offer students guidance on how to structure their work or respond to set tasks are not useful or necessary. I am arguing that we need to use the acts of giving feedback and designing evaluations as a way to achieve the university's core missions – educating graduates with *specialized* knowledge, skills and dispositions and contributing to knowledge-building through specialized research – rather than only to comply with policy or set standards. To do so requires different, specialized ways of approaching feedback that considers knowledge *and* knowers as well as engaging with more *and* less context-dependent meanings and learning.

The two principal forms of assessment and related ways of offering feedback noted above are formative assessment and summative assessment. But these are not the only two approaches to assessment and feedback-giving. There is a third perspective, linked to this chapter's focus on specialized knowledge and knower development through feedback that prompts critical reflection and longer-term learning. This is *sustainable assessment* or assessment *as learning* (Boud, 2007; Boud & Falchikov, 2006). In essence, sustainable assessment considers students' learning beyond the task or the module they are working on currently and asks what students need to be able to know and do to continue their learning when the support of the lecturer, module materials and structure, and even the university are no longer there. When students leave university and can no longer call on you for help, how do they know what to do in their specialized professional environment? How do they work it out if they do not know?

Sustainable assessment needs to include forms of critical, specialized reflection to enable students to look for meanings and connections within and across parts of their degree/diploma programme, as well as between and across their academic and professional contexts. Instead of focusing on filling gaps or correcting mistakes, feedback with the purpose of enabling sustainable learning helps students to see both the nature of the *knowledge* they need to learn and the related *ways of knowing, doing and being*; it offers them informed choices to make in moving forward in their learning. This kind of feedback can enable students to move from having knowledge to using and creating knowledge, from being a novice student to becoming a specialized knower.

Unfortunately, a great deal of feedback in higher education is not offered with sustainable or forward-looking learning in mind (Carless, Salter, Yang, & Lam, 2011). Although there is an enormous body of research on the hows, whats and whys of feedback-giving, students in many different university contexts still struggle to use feedback effectively to inform further learning and work for a number of reasons. One is that students do not always understand clearly what feedback is actually for, so rather than reflecting on feedback and incorporating it into further

work as advice and guidance, they appear to ignore it (van Heerden, 2018). Another linked reason is that feedback is offered as a self-evident learning practice: lecturers give it and students should just know what to do with it (Orsmond & Merry, 2011). This belief may lead to a lack of conscious reflection on how to give feedback or on what feedback focuses on so that it can enable students to align their work with the underlying learning goals and organizing principles of the discipline.

Feedback-giving and receiving is a crucial aspect of student learning (Carless et al., 2011; van Heerden, 2018). Students cannot see on their own where they are hitting and missing the mark in terms of successfully mastering *specialized* knowledge and ways of knowing, doing, and being. They need to be shown where they are doing the right kinds of things and where they are not, and feedback is the means for enabling them to see this and then move through their own learning process more consciously. Much of what I have discussed here also applies to the kinds of feedback lecturers ask students for in students' evaluations of teaching.

Evaluation for reflective teaching development

Both feedback to students on assessments and evaluation of teaching are linked to notions of quality in higher education. Two of the dominant ways in which quality is understood, related to this chapter's focus, are first, as compliance with a set of pre-determined standards, which by their nature are generalized to the whole university and all teaching and learning, and second, as fit-for-purpose activities and practices designed to achieve specific goals and ends (see Harvey & Green, 1993). Oftentimes, because it is required by the university as a way of showing its level of compliance with and meeting of both internal and external standards, evaluation tends to provide rather generic accounts of students' learning experiences.

The kinds of evaluations designed when the focus is quality as compliance tend to ask students to comment on aspects of the module such as 'the online system', the 'course materials', the 'preparedness of the lecturer', and the 'value of the tutorials'. Rather than asking students to comment in prose, forms tend to be designed around Likert scales (e.g., 1 = Excellent and 5 = Terrible) or tick boxes (e.g., which of these aspects of the module helped your learning the most?). They provide us with evaluative data, but arguably rather thin data if the goal is understanding how the design and teaching of the module contributed to or hindered students' engagement with disciplinary knowledge and the process of becoming a more specialized knower.

Like feedback, evaluation can be understood as summative, formative or sustainable in form and intent. Summative evaluation forms would focus mainly on tick boxes, rating scales and limited open-ended questions that look at what students liked, did not like, and generally what worked and what did not. The goal here is an overview of how successful the module was. But success here is related to the degree of compliance with the university's broad standards and policies for teaching and learning. Formative evaluations would ask more open-ended questions focused on specific aspects of the module, such as how students experienced particular teaching activities, assessment tasks and assignments,

and course materials. The goal here would be to gather information the lecturer(s) could use to rethink and revise further iterations of the module and perhaps take forward into teaching other modules.

Sustainable evaluation would ask students to think about their learning within and beyond the present module in a more holistic way. Questions would be aimed at asking students about, for example, the kinds of knowledge included in the module, possible blind spots or gaps the lecturer could reflect on, the environment created for learning in lectures, practicals, tutorials and other formal activities. What can you ask students to comment on that will prompt you to rethink concerns such as the extent to which the classroom was a welcoming place for different bodies, knowledges and ways of thinking about issues raised in the module? Or the extent to which students felt recognized and supported by the organization of the curriculum, the assessment tasks and assignments, the engagement created through teaching activities, the inputs from the lecturers (and also tutors, where applicable)? This would likely have to be done using different forms of evaluation, perhaps including open-ended forms, focus groups, asking students to post or send anonymous voice notes – there are several creative ways in which this could be achieved. The learning here can be used in the design and teaching of the next module, but the ultimate goal is the longer-term growth of the lecturer as a person and an educator; this is a more socially inclusive, critical understanding of *success* in learning and teaching.

This chapter will move now to consider how the specialization plane and the semantic wave can be used together as a theorized approach to developing both feedback and evaluation practices that contribute to longer-term, future-facing development for both students and lecturers.

The specialization plane and semantic waves

If you have been reading this book chronologically, you will have come across one of the planes in the Legitimation Code Theory (LCT) framework used to capture the topography of different learning and teaching practices and processes, *the specialization plane* (Chapter 2). The theorization of disciplinary knowledges and knowers captured by the specialization plane points to different sets of legitimate practices and their underlying organizing principles. These are realized as different *specialization codes*, and denote the development of different kinds of specialized knowledge and knowers (Maton 2014, pp. 23–42). In Specialization, the underlying principles organize what counts as legitimate knowledge (procedural as well as principled ways of accessing and making knowledge), and who the legitimate knowers are (what characterizes their ways of being and doing). In offering students feedback on assessments, we need to be mindful of the specialization code that our discipline values so that we can align feedback with the underlying organizing principles that shape what the discipline values and legitimates as the *basis* for successful achievement. Evaluation, too, can consider the *basis* for successful achievement in the discipline when students are asked to consider how the teaching has

guided or facilitated students' understanding and insight, and perhaps also offered spaces for necessary challenges to the current status quo (see Chapter 3).

There are two concepts that together generate specialization codes: *epistemic relations* (ER) and *social relations* (SR). Epistemic relations consider the *knowledge* that is created, legitimated and taught within the discipline; social relations consider the people creating, legitimating and learning the knowledge – the *knowers*. In all disciplines, both relations are always present. There is always knowledge and there are always knowers (Maton, 2014, pp. 1–22, 23–42). But it is seldom the case that both relations are equally stronger or equally weaker; usually, one is given priority over the other (see Chapter 2, Figure 2.2).

In the specialization plane, four *specialization codes* are created through bringing epistemic relations and social relations together where one is stronger than the other, both are equally stronger or both are equally weaker. These are represented as quadrants on the specialization plane (Figure 6.1, also Figure 2.1). From top left, moving clockwise:

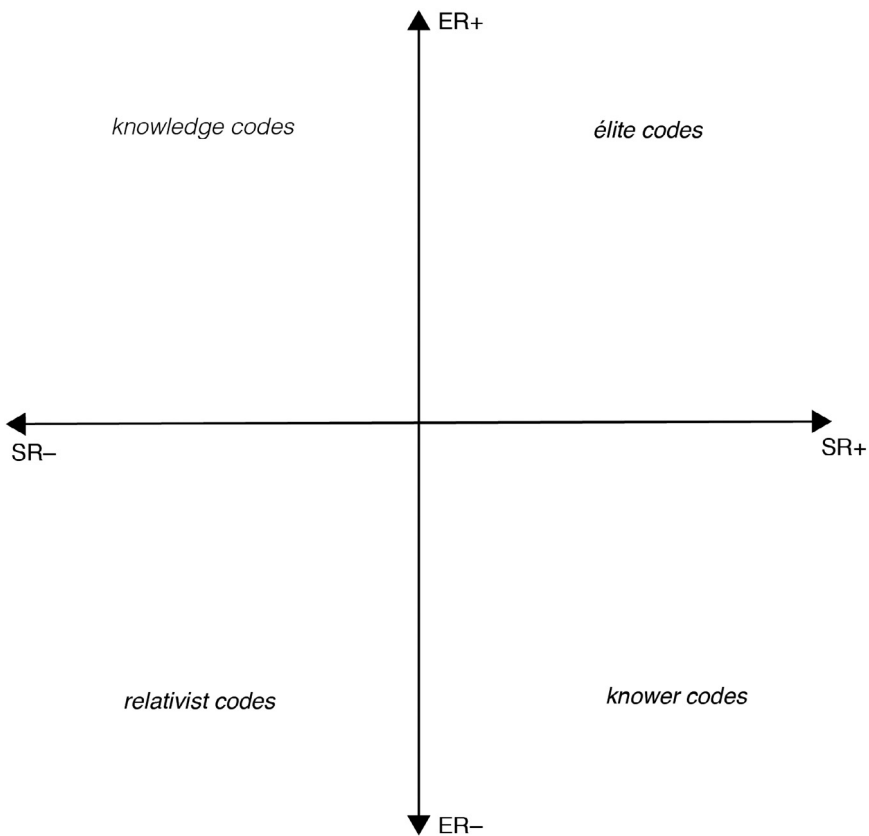


FIGURE 6.1 The specialization plane
Source: Maton (2014), 30

- *Knowledge codes*, characterized by stronger epistemic relations and weaker social relations (ER+, SR−). These are subjects or disciplines that emphasize mastery of procedural, technical and/or principled knowledge as the *basis* of legitimate achievement. Think of the Accounting or Engineering Sciences (Myers, 2016; Wolff, 2015, respectively).
- *Élite codes*, characterized by both stronger epistemic relations and stronger social relations (ER+, SR+). These are subjects or disciplines that emphasize both the mastery of technical, procedural, and/or principled knowledge alongside the simultaneous development of a set of aptitudes, dispositions or attitudes that characterize a successful knower. Think, perhaps, of Music (Lamont & Maton, 2008).
- *Knower codes*, characterized by weaker epistemic relations and stronger social relations (ER−, SR+). These are subjects or disciplines that emphasize the development of a specific set of personal or professional characteristics as the *basis* for legitimate achievements, including dispositions, aptitudes and attitudes towards knowledge. Think of Political Science or Jazz Studies (Clarence, 2016; Martin, 2015, respectively).
- *Relativist codes*, characterized by both weaker epistemic relations and weaker social relations (ER−, SR−). These are subjects or disciplines that may have no particular emphasis on either knowledge or knower development as the *basis* for legitimate achievement. Think, perhaps, of a stand-alone academic literacy module that teaches academic writing to students using general essay topics and rather generic writing skills and approaches (see Chapter 5).

It is important to remember two key principles when using the specialization plane and specialization codes. The first is the difference between *focus* and *basis*. The *basis* for legitimate achievement in a discipline sets the code. This can be determined by examining closely what aspects of learning are emphasized in your discipline itself and, if there is one affiliated, in the profession with which your discipline articulates. For example, in Accounting, in both the university discipline and in the professional field, technically and procedurally competent and expert accountants are needed to ensure accuracy, professionalism and excellent attention to detail (a hallmark of this field). Who accountants personally are as people is relatively less important and where dispositions are considered, these are framed closely in relation to the knowledge (e.g., it is important to be accurate, because inaccuracies can cost money and time). This has led researchers in this field to argue that this is a knowledge code (Myers, 2016).

Yet you could, as an Accounting lecturer, set assessment tasks within a module or course that prioritize the development of the more interpersonal or professional ways of being or engaging – such as writing a client brief, or a task role-playing an exchange with a professional colleague – and offer feedback that enables students to think about their behaviour, values and ethics more consciously. This does not shift Accounting to a knower-code orientation because the *basis* has not changed. Rather, the *focus* of the assessment and related feedback has shifted within the

underlying knowledge code, to acknowledge that students do also need to learn how to 'be' accountants and this development is part of their overall learning. This involves strengthening and weakening the epistemic relations (ER \uparrow/\downarrow) and social relations (SR \uparrow/\downarrow) within assessment tasks and in feedback-giving, as different kinds of tasks with different learning foci will be necessary for holistic knowledge and knower development.

The second principle to hold onto here is that there is no good code or bad code. You are not trying to achieve some sort of ideal. Your discipline's code represents a legitimate set of values, knowledge and practices and your job, as lecturer, is to help students see and achieve this as successfully as possible.

To summarize briefly here: when we offer students feedback on planned formative and summative assessment tasks, we need to think carefully about the specialization code that indicates what counts as legitimate or valued learning in our discipline and how we communicate this to students to enable them to further practice and eventually master this code.

In considering evaluation of teaching – and here we can expand slightly to consider our own informal and ongoing self-evaluation in addition to formal course evaluations – the specialization plane can also be useful. One of the most important things we want to evaluate is not necessarily how much students liked the module or liked their lecturers and tutors, but rather how much they understood of the *purposes* and *learning outcomes* of the module and whether the teaching helped them to achieve these or not. Rather than only a set of generic questions linked to a quality assurance exercise in which students tick boxes or rate aspects of the module on a 5-point scale, we can use insights from Specialization to consider additional questions to evaluate students' experiences of the module in relation to the specialized learning outcomes and underlying organizing principles.

I have argued, so far, that feedback and evaluation need to be focused on sustainable, longer-term reflection on and development of specialized knowledge and ways of knowing, being and doing. The second LCT tool we are therefore using to enact feedback and evaluation practices in ways that can connect problems that need to be solved both with the immediate context and with possible future contexts, is Semantics, specifically semantic waves. As with Specialization, Semantics also uses two related concepts to create semantic codes and to create semantic profiles, including waves. These are *semantic gravity* (SG) and *semantic density* (SD).

Semantic gravity considers the context-dependence of meanings (see Maton, 2014, pp. 106–124). Concepts, symbols, terms, gestures, etc. that are not dependent on a specific context for meaning have *weaker* semantic gravity (SG–), whereas concepts, terms, symbols, gestures, etc. that are dependent on a specific context for meaning have *stronger* semantic gravity (SG+). Consider the concept of 'social class' (see also Chapter 4). Apart from any application or context in which you might use this concept in History, Political Science, Sociology or Education, for example, it can be defined abstractly as connoting a system for dividing societies into groups that experience relative social, economic and

political privilege depending on education, income, historical factors in a particular society (e.g., colonialism). Individuals or groups 'belong' to different 'classes'. This abstract definition could be taken into a range of assignment or disciplinary contexts and applied to different problems; thus it is not dependent in any one context for meaning. It has *weaker* semantic gravity (SG-). But, if you were to set an assignment where students had to discuss the evolution of social class and its effects in Britain over the last 200 years, or one where students had to consider the influence of social class on educational success in Australia or South Africa, the concept would become more dependent on those national political, social and economic contexts for meaning. It would have, in these more specific assignments, *stronger* semantic gravity (SG+).

Semantic density (SD) considers the complexity of meanings (see Maton & Doran, 2017). Meanings that are less complex have weaker semantic density (SD-) and meanings with greater complexity have stronger semantic density (SD+). In the example above, in its more abstracted sense, the concept of social class has several different meanings condensed within it that can be unpacked or explained in relation to particular contexts or examples. In its abstract form, then, it has *stronger* semantic density (SD+). But, you can take this abstract concept 'down' from the abstracted and denser conceptual understanding and use it to explain particular problems or issues. For example, if you asked your students to write an essay on why working class students in South Africa may struggle to succeed in higher education in spite of changes in the sector since 1994, the concept of 'social class' would need to be defined and explained relative to the problem at hand. It would have specific, delimited meanings and thus *weaker* semantic density (SD-).

Semantic gravity and *semantic density* can be used separately to theorize aspects of learning and teaching. For example, semantic gravity has been used on its own to theorize the teaching of reflective academic writing instruction and English for Academic Purposes curriculum and pedagogy (Kirk, 2017; 2018 respectively), as well as the translation of critical thinking into effective written tasks (Szenes, Tilakaratna, & Maton, 2015). In your own analyses of feedback and evaluation, you could use just semantic gravity to consider the context-dependence of the meanings you relate to students about how to improve their writing or the meanings you ask for in relation to how students have experienced the intended learning in your module. In the analysis in the following section, where we bring specialization codes and semantic waves together to consider feedback-giving and evaluation design, this idea will become clearer.

In the analysis section that follows, the role of Specialization will be to consider the underlying organizing principles in terms of the socially created and socializing 'rules of the game' (Bourdieu, in Wacquant, 1989) that denote different communities of practice. For example, English Studies holds that a critical rule of the game that specialists in the discipline must master is a critical, creative, plural approach to literature, meaning that they look for deeper, symbolic, emotional and psychological meanings in the texts they read, which enables them to consider characters' motivations, choices and actions with an analytical lens (see Chick, Hassel, &

Haynie, 2009). Rather than trying to find one meaning or one truth, teaching and assessment try to show students how to critically consider multiple, contested meanings and make sense of these in relation to larger issues that the texts reference (e.g. politics, mental health, romantic love, and so on). This is a social and socializing context and it has ‘rules’ that students need to follow to become successful members of this context or community of practice. Feedback plays a significant role in either facilitating this or making it harder for students to work in valued ways (see also van Heerden, 2018). We will be using Specialization to consider what we value most in teaching and learning, and what we therefore need to be helping students to work on using the feedback we are offering. Further, we can use Specialization to consider phrasing evaluation questions to ourselves and to students that connect us with teaching these ‘rules’ in conscious, visible ways.

Semantics will be used to consider how we communicate the meanings we need to once we have worked out what these are. We will focus on developing ways of communicating feedback and phrasing evaluation questions that are connected with the realization of sustainable learning. This will largely centre on using Semantics to look at how both feedback and evaluation can be tied to specific contexts for both meaning and action, as well as how we can change this situation to feed forward to further contexts and situations beyond the present.

Analyzing feedback and evaluation practices for sustainable learning

The analysis of the data will be divided into two sections, *feedback* to students and *evaluation* of student learning. The data used is drawn from my own feedback and evaluation practices as an educator.

Feedback

Rather than focusing only on summative feedback that justifies marks awarded for formal assessment or formative feedback that informs immediate improvements to a draft task, we should be aiming for longer-term, sustainable learning (Boud, 2007; Boud & Falchikov, 2006). This requires feedback to speak to *reflection-for-learning* to gain an accurate sense of how students are currently working and what they need to do to make necessary changes and improvements in ways that align with the rules of the game in their discipline.

There are two main ways in which feedback is offered in the data here: the first, potentially a mix of formative and summative in intention, the second, largely formative and perhaps sustainable in intention. The first example we are going to unpack is a rubric offered to students as a way to guide their written work, justify a current mark, and potentially indicate what kinds of action would signify a more appropriate assignment. The second example is drawn from comments made in the text and at the end of a draft assignment, which will be analyzed together.

Example 1: Rubric

I developed this rubric in 2018 for a research report a group of third-year Political Science students had to write in the final semester of their undergraduate degree programme. Parts of the final report were read and commented on earlier in the semester, written as coursework assignments for formative and summative learning purposes, meaning they received marks but the feedback was aimed at helping them make revisions before completing the final draft. This rubric was in the module outline as a guide for preparing the final report and was attached to the final marked assignment as part of the feedback. This was a 'high stakes' assignment as it carried significant weighting in terms of students' continuous assessment marks (which formed half of their final mark for the module). The analysis of the way in which this rubric offers feedback and how this relates to students' learning of the discipline's specialization code will be considered first, followed by mapping this rubric onto a semantic gravity wave.

Previous research has argued that Political Science is a knower-code discipline (Clarence, 2016; Hlatshwayo, 2019). As a social science discipline, it tends to value students' development as critical, creative, analytical, adaptable thinkers and writers who are able to harness theory drawn from allied disciplines of Political Science – Ethics, Philosophy, History and Sociology – to analyze and make sense of problems related to governance, the state, power, and authority. There is some procedural knowledge, especially around the making of arguments, but this cannot be used in a technical way to achieve success. Success is considered on the *basis* of showing evidence of possessing knower attributes in written and oral work, not mastering forms of technical knowledge or know-how. This was certainly the case for this module, and for the whole programme of study of which it was a part.

Keeping this in mind, we need to consider a small bit of background to this task before we analyze it. This assignment was the main assignment in a final year module on research methodology and research writing. The overall learning outcome of the module was to teach students some of the basic principles of social science research and take them through the different stages of conceptualizing, conducting, and then writing up a small research project. Within the knower-code *basis*, aspects of this module were perhaps more technical than other modules within the degree programme, such as smaller draft tasks over the course of the semester, the 'literature review' (assignment 1), and the 'methodology' (assignment 2). There is a basic social science research framework that students need to become acquainted with in undergraduate study as a foundation for postgraduate study. This module is designed to keep the process quite focused and strongly guided as the semester is relatively short and the class is large with 150 students on average; it therefore does tend to shift closer to a knowledge code in some respects, strengthening the epistemic relations relative to other modules and weakening the social relations (see Figure 6.2).

The wording and focus of the rubric underscores this: look at the ways in which the lecturer has written it (Table 6.1). The rubric itself is divided up according to each 'section' of the research process to guide students in creating the structure of

TABLE 6.1 Rubric for 3rd year Political Science assignment

	<i>Highly achieved</i> (75% +)	<i>Well achieved</i> (68%-74)	<i>Moderately achieved</i> (60-67%)	<i>Basically achieved</i> (50% 59%)	<i>Poorly achieved(49% and below)</i>
Title is clear, creative and describes the main point of the project.					
The introduction clearly sketches out the background, main aim of the project, and outline of the report.					
The literature reviewed is relevant, well structured, and sets the research-based context for the project.					
Research question clearly expressed.					
The theory and concepts included are well-defined and explained within the context of the project and research question.					
The research design and methods are suited to the project, clearly explained and described, and the method of data organisation and analysis is clearly outlined.					
The selected data is relevant to answering the research question, and the themes are clearly set out, and written up. The theory has been effectively used to analyse the data and present meaningful findings related to the research question.					
The conclusion indicates the main argument the research project is making, and summarises the relevant aspects of the project. There is an indication of the value or significance of the research.					
Referencing is accurately and consistently done throughout.					
Good attention to correct grammar, punctuation, style and tone overall					

the report. It starts with the title, then moves to the Introduction, the Literature Review, the Theoretical Framework, and so on. It closes with two categories related to grammatical accuracy and accuracy of referencing. This looks and sounds like a form of procedural knowledge focused on accurate and well-defined use of concepts and terms, clear explanation, and effective application of theory to selected data to develop a substantiated argument. There are hints of the underlying knower code, although these are somewhat tacit (e.g., a ‘creative’ title, and ‘meaningful’ findings). In terms of plotting it onto the specialization plane, I would place it towards the top left of the knower-code quadrant (Figure 6.2).

A further observation is that there are mark categories assigned for each section and the marker is required to tick a column rather than assign a specific percentage. This means that the final mark is based on the overall impression the assignment has made on the assessor, rather than decided by adding up the mark for each section and reaching a final grade. We have coded this as a knower code, meaning that the *basis* for successful achievement is showing evidence of creative, analytical, critical thinking and forming connections between sections of the report to create a

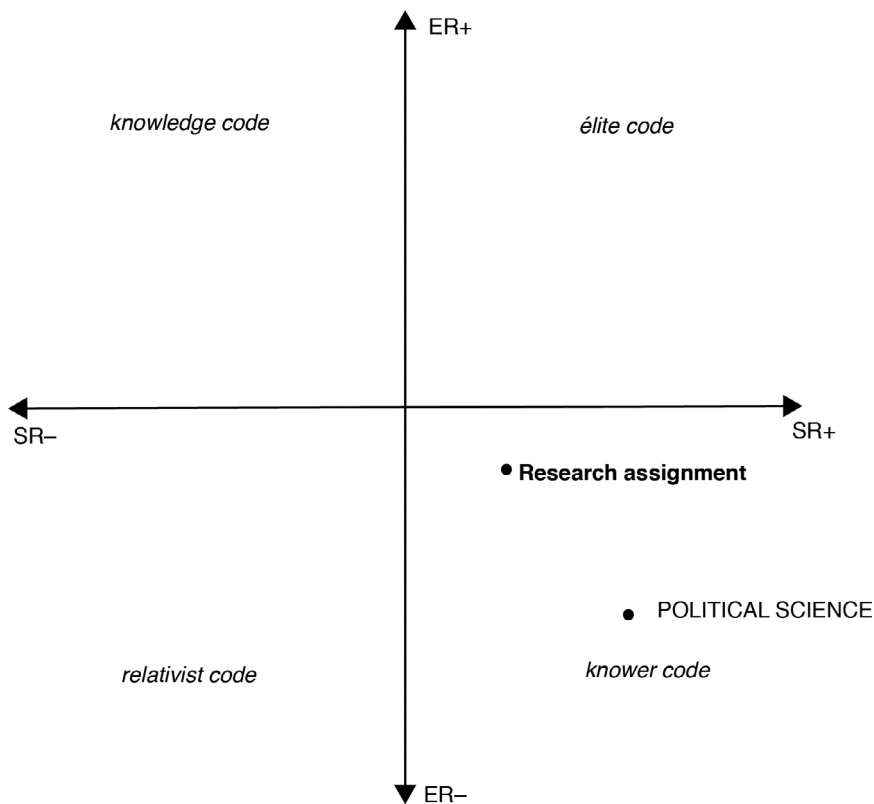


FIGURE 6.2 Specialization plane for Political Science research assignment

well-substantiated argument. Therefore we can reasonably assume that this final impression will be informed by the underlying knower-code organizing principles. Even within each section of the assignment, the assessor will be looking for the knower-code *basis* in how students have expressed their knowledge and how they have connected the different sections together into a coherent argument, rather than for how closely they have reproduced this basic structure.

The final assignment, then, will be assessed on how well students have ‘waved’ in their writing and meaning making between more and less context-dependent meanings (SG+ and SG–), slowly building a relatively more complex argument through weaving together simpler and more complex meanings across the different sections of the report (SD– to SD+). The rubric hints at this if you know this discipline well, but for many of the third-year students this rubric may not clearly signal the need to develop the assignment as a semantic wave given the way in which it is constructed and the ways in which the outcome or goal for each point is phrased. Rather than a continuous semantic wave, the rubric reads like a broken wave or a series of ‘escalators’ (see Maton, 2013; Chapter 4, this volume) (Figure 6.3).

The small black dots are the different report sections, placed in relation to their relative semantic gravity and semantic density within the assignment as a whole, for example, the Introduction is an overview of the project as a whole and the larger issues it touches on, whereas the literature review moves closer to the topic being researched, looking at more particular issues that are implicated in the research. The dotted lines represent the implied shifts in the wording of the rubric, noted in italics below. For example, for Introduction and Literature Review, there is an implied connection to context where the rubric states:

The introduction clearly sketches out *the background, main aim of the project, and outline* of the report.

The literature reviewed is relevant, well structured, and sets the *research-based context for the project*. Research question clearly expressed.

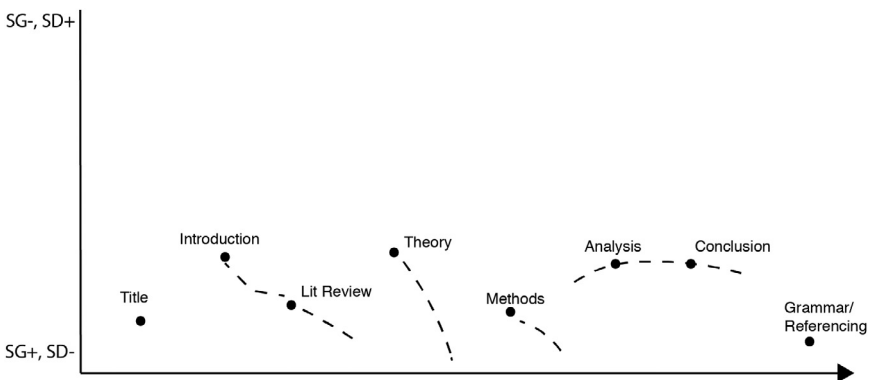


FIGURE 6.3 Semantic profile for Political Science rubric

As a structuring guide, the rubric works relatively well to help students see what the required aspects of the research report are and what they need to do to create a report of their own. As a feedback mechanism, the rubric provides, at best, basic summative feedback. It may have had some formative intentions, but these are only tacitly implied. If formative feedback is the intention – in larger classes rubrics are often advised as a way of enabling lecturers to provide both summative and formative feedback to students – this rubric would need to be reconceptualized. For example, the need for explicit connections between the sections would have to be made clear and, crucially, the need for the report as a whole to make a critical, theorized and coherent argument would have to be signalled too. This would align the rubric and students' understanding of the purpose of the task with the underlying knower code more consciously. If I were to teach this module again, I could rewrite the above two points on the rubric thus (additions in bold):

The introduction clearly sketches out the background, main aim of the project, and outline of the report. **It clearly states the main aim of the report as an argument that will be developed and substantiated through the steps noted in the outline. Without a clear statement of the argument or core point of the report, you may not be able to write a coherent, connected account of your research process and findings.**

The literature reviewed is relevant, well structured, and sets the research-based context for the project. Research question clearly expressed. **The research question notes the contribution that your research will make to the field you have written about in the literature review. This is a next step in the argument you are making: where does your research fit into this field, and what will it add to knowledge?**

While adding explanatory notes to each point in this manner will make the rubric longer, it will bring the rubric as a tool for student learning closer to enabling critical reflection and more specialized learning. This is important when you recall that this project is designed to teach students the basics of social science research so that they are better prepared for postgraduate research work. Ideally, the rubric needs to speak to the context of the present assignment in relatively clear and unambiguous terms, using language that signals the knower-code orientation of the discipline students must master. But ultimately it also needs to help students to see that what they do in this assignment to evidence their learning is also applicable to other similar forms of learning and work, albeit in adapted forms. It must therefore point to less context-dependent learning and understanding (from SG+ towards SG-).

Example 2: Assignment feedback

The other main way in which we offer guidance to students on their progress is through written feedback on assignments. This may take the form of comments throughout the assignment in the margins, followed by a brief summary comment

at the end or a detailed summary comment without many in-text comments or notes. The intention here can be either summative to justify the mark awarded or can include a formative and even sustainable element, encouraging students to learn from the feedback to inform future thinking, writing and learning. If we want students to use feedback to position themselves as knowers, whether this is through mastering technical and procedural knowledge (a knowledge code), or a particular set of behaviours or dispositions (a knower code), or both (an élite code), we need to consider how we communicate this to them. Are most or all of the comments about the technical aspects of writing, when what matters is the creativity or criticality of the argument? Are we focused on less helpful elements of technical knowledge, such as referencing format over a specific methodology, way of presenting results/data or mode of problem-solving?

In the two examples below, look at how the lecturer has phrased the feedback: 'A' is an example of feedback in the margins and 'B' is summary feedback on a draft of the 'literature review' section of a research proposal for a Master's level project in Political Science. This data is feedback I offered to a student, and is used with the student's permission.

- A: Up til this point, you are starting each paragraph with a reference, and then summarising the main point of the article. This is not what a literature review actually is. You need to think of a series of claims – one per paragraph – that will relate to your research project and the argument you want to put forward about how the colonial legacy has endured through African institutions, such that African development and agency has been constrained. Then you will use more than one of the readings, as they relate to your claims, to support these claims, and then you will explain and expand by linking the claims and evidence to your research problem.
- B: You have done a decent amount of reading for now, although not enough for the final literature review chapter, so you need to keep going and adding to this draft. The main revision to your writing that you need to work on is centering your own argument as the 'golden thread' around which you organize parts of the readings to support your own claims, and then explain what that knowledge or information means related to your argument. Having your own argument and 'voice' or way of making this clear and well expressed is crucial at this level. So you need to think about what you are claiming as the knowledge gap here, and what kind of tentative claim you think you can support about the functioning of the PAP. Start there, and hopefully you will be able to find and centre your voice more clearly in the next draft.

Both comments clearly indicate to the student that what he is doing is developing an argument in his own 'voice' as the researcher. The first comment, focused on a specific section of the text, sounds a little more technical in focus than the final, summary comment, but both reference the underlying knower code (ER–, SR+).

What is of greater interest here, is how the process of developing this researcher voice through successive, connected iterations of reading, thinking and writing is communicated. What is needed, in this kind of assignment particularly but in all learning more generally, is *cumulative* development of understanding, insight, knowledge and ability to act in appropriate ways. Each assessment task, each in-class activity, each piece of homework must enable students to build on prior learning such that they become increasingly specialized knowers in their discipline. This means that the feedback needs to be connected across tasks, just as the deeper purpose and goals of the assessment tasks are connected and cumulative (see also Chapter 4). What we are pointing to here is a semantic wave that signals connections between specific learning contexts and assignments and abstracted and generalizable principles that enable reflective, future-facing learning.

In this case, the context the feedback is referencing is how to write a research proposal, especially the section reviewing the literature relevant to the research problem. The more abstracted knowledge here is how to create an argument in his own ‘voice’ as opposed to writing a reproductive summary of other writers’ ideas. There is the beginning of a semantic wave in both cases that represents the lecturer’s intentions towards enabling longer-term learning, although she does not quite get there. Here, I am just going to use semantic gravity in this analysis (Figure 6.4), because I want to think about the context-dependence of the learning enabled by the feedback only.¹

The main reason this lecturer does not quite realize her intentions for longer-term, sustainable learning about argumentation in research writing is that she ends her comments with a focus ‘down’ on this one section and this present draft. Especially in the final summary comment, this keeps the student focused on learning from this draft to improve just the next draft. This feedback is certainly formative, as it ‘feeds forward’ (Deyi, 2011) to the next step in his reading, writing

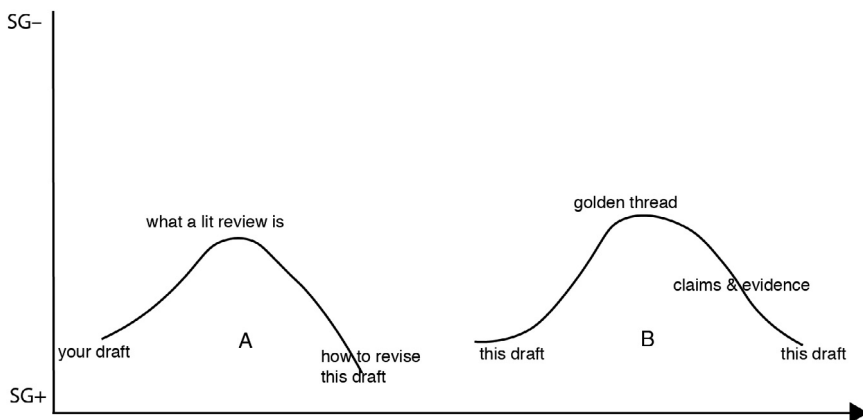


FIGURE 6.4 Semantic gravity waves for assignment feedback A and B

and thinking development. But it is not necessarily sustainable because it does not clearly indicate to the student how the section being drafted here is connected to other sections and must be written with its place in the research proposal and in his eventual thesis as a whole. The 'golden thread' metaphor for argumentation is not clearly connected to the whole proposal/thesis but seems to apply to just this section. She does mention that as a student-researcher working 'at this level' it is crucial that he actively develop his own 'voice' or his own argument, but this comment is not developed further in this feedback.

It is certainly not the case that feedback on one assignment can and should comment on everything the student needs to improve on. This is why we, ideally, have multiple similar assignments within modules, so that we can cumulatively connect and build learning through iterative tasks and feedback-giving. Or, have multiple, different tasks and vary what we assess and how we do so, depending on what students need to be learning, why and how (see also Chapter 4). If we tried to do all the learning in one big assignment and one round of detailed feedback the likely result would be to overwhelm and terrify our students and put an enormous amount of pressure on ourselves. When considering feedback-giving, we need to think about what is most important for students to work on to become more successful knowers in the ways valued by the discipline. What is most important is the meanings students need to be creating as part of the discipline's specialized knowledge and knower structure, such as: whether there is a critical argument; whether the student extracted the key issues from a set reading; whether they have expressed mathematical notation accurately; whether they have captured the point of an experiment clearly, and so on. The underlying, more specialized concerns should always receive priority in feedback-giving, because these speak to the students' achievement of the *basis* for success in the discipline and represent aspects of learning that students really need to focus on in further work.

If, then, we cannot focus on all the issues students need to work on in one feedback event, such as an assignment or presentation, we need to carefully consider a couple of the most relevant actions students can take per assignment to improve their writing and thinking in relation to the discipline's specialization code, whether enacted as revisions of the current task or work on new tasks. Ideally, these would both reference the current task, so students understand the mark they have received (if there is one) and where they are in relation to the required standard of work now (stronger semantic gravity, SG+), before weakening the semantic gravity to point students 'up' the wave towards using the feedback as advice to inform future work (from SG+ towards SG-). This kind of feedback would encourage reflection: where am I now and what went wrong? What steps do I need to take to improve or change this outcome? What do I do next? This kind of feedback would help students to build the capacity to reflect, plan, and make changes, which is a critical aspect of sustainable, longer-term learning (see Boud, 2007).

Evaluation

Evaluation is a different form of feedback, from students to lecturers on their learning experiences within a course or module. Evaluation is closely linked to quality assurance. Even where university assessment policies provide guidance around assessment practice, lecturers have a fair amount of autonomy in setting tasks and working out what feedback to offer and how to do so. In evaluation, especially formal module evaluations where a quality assurance unit and line managers (e.g., a head of department or a dean) look at the students' feedback to lecturers, there may be less autonomy in deciding how the evaluation should be designed or what its purpose should be.

Formal university evaluations of teaching are conducted to ensure that teaching and learning has met the standards the university has set for what it regards as quality, often informed by notions of providing 'value for money' and enhancing student satisfaction (see Edström, 2008). This purpose of evaluation can lead to relatively generic evaluation forms where what is assessed is less students' specialized learning and engagement and the extent to which teaching enabled this, and more their sense of how well their expectations were met by the lecturers' preparedness, the course materials, responses to requests for assistance, and so on. While responses to these kinds of questions can signal areas to explore in more detail to ensure students have a rewarding educational experience (such as problems with an online learning system or difficulty getting access to help from the lecturer outside of class-time), the feedback to lecturers here can be fairly superficial. If lecturers are unable to avoid these kinds of evaluations, they need to find spaces in their modules and curriculum to create alternative opportunities for more critical forms of evaluation and the reflection these may enable.

The example in this section looks at analyzing a more traditional or generic form of evaluation and considers how this could be augmented with questions or prompts to students that have more sustainable reflection and learning in mind.

Example: An online course evaluation form

This example is taken from a summative course evaluation for a professional development course, in which the students were university lecturers. If you look at the first two questions, imagine what the feedback would tell the lecturers or facilitators here. If, for example, the majority of students on the course found that the course materials and in-session tasks 'exceeded expectations', you would be able to claim that the course was successful in terms of providing a form of quality as value for money. But if, by the same token, several found that the online system or other participants did not meet expectations, what do you know that will help you make changes? What exactly went wrong and what impact did that have on their learning?

If you look at the longer questions, which require students to type their responses in prose, you will see that the lecturer or facilitator here is trying to gather less generic feedback, asking students to comment on their learning. These kinds of

To what extent was the short course meaningful in terms of your tutorial practices/role within your own context?*

- very useful
- Not at all
- A little useful
- Somewhat useful
- Very useful
- I could not have done without it

Were your expectations met with regards the following areas:*

	Exceeded expectations	Met expectations	Did not meet expectations
The facilitators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other participants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course materials and readings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The venue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-session tasks and activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-session activities and homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which of the theoretical tools discussed in the course assisted you to evaluate the role of tutorials in your context as integral or additional to the lectures? Please comment on how they did so.*

What aspect/s of the short course did you find most useful?*

What about this short course was least beneficial to you?*

Did the short course meet all the needs you came with? If not, what else could be included in a future version of the course?*

What value, if any, has attending the short course added to your practice?*

FIGURE 6.5 Evaluation form for a short professional development course

questions elicit answers that can inform the design and teaching of future iterations of this module and these can potentially offer the facilitator insight into their teaching practice that can prompt their own reflection and further learning. But they are still relatively generic in the sense that students are asked to pick what they did and did not find beneficial, rather than guided to comment on specific aspects of the

curriculum, teaching and assessment and the alignment with the underlying specialization code (in the case of this course a knower code). Some students could focus on aspects of their learning that would give lecturers insight into whether and how the knower code orientation of the course was realized. But by the same token, students could choose to make more general comments about accessing the Internet for course materials or having to work in groups with people they did not get along with. Creating more open-ended evaluations does invite more detailed and in-depth feedback. But the questions need to be carefully phrased if the goal is a deeper understanding of the extent to which the curriculum and teaching are enabling students to achieve the *basis* of success as characterized by the specialization code, and the extent to which teaching is widening this success to include more students.

If we were to map this evaluation form onto the specialization plane, it would have both weaker epistemic relations and weaker social relations (ER-, SR-) because it does not appear to be asking students to reflect on either a specific aspect of procedural or technical knowledge or the development of particular attributes or ways of being. The questions in this form are phrased as a relativist code. The wording is such that responses that comment on the achievement of the underlying knower code are not specifically elicited and so variation in responses is actually invited where this may not be the facilitator's intention. If we were to shift tools and map this onto a semantic wave, it would look rather flat, because there are few questions that ask students to offer feedback that the lecturer can use to inform reflection on their future teaching practice or 'lift' themselves out of thinking just about this iteration of the course. There are, however, questions that deliberately ask students for feedback on further iterations of the module. This form therefore asks students to give the lecturer a mixture of summative and formative forms of feedback, but does not push further into more sustainable reflection and learning. Figure 6.6 represents this with the solid line.

We could add to this form with different kinds of in-class evaluation events or tasks that do this more specific work. For example, at the end of a curriculum topic

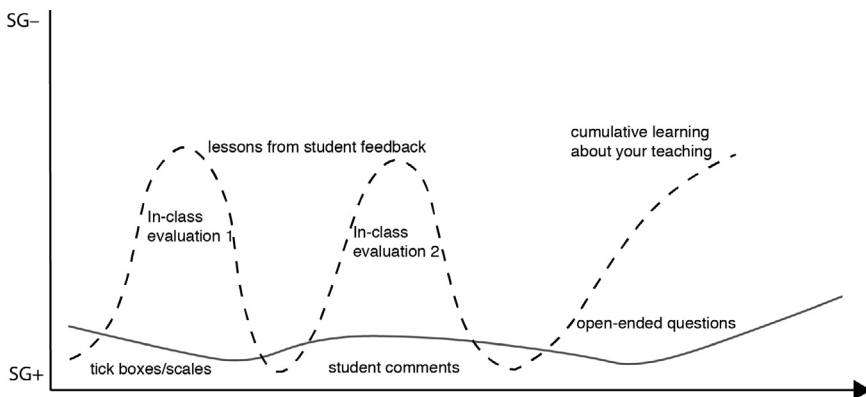


FIGURE 6.6 Two layered semantic gravity profiles for evaluation

or section, students could be asked to reflect on the last few lectures or sessions and write a short response on a piece of paper stating three things they have learned and one thing they still do not understand, or one thing about the teaching that is enabling their learning and one thing that is not. Another tool that has proven useful in this regard is to ask students to complete a ‘Stop–Start–Continue’ exercise in which they write down one thing you or they should stop doing, one thing you or they should start doing, and one thing that should be continued. You can ask them to think about their own learning here or your teaching and both can provide you with insights into what is happening in the classroom, which can be linked to the specialization code. Using a summary of their responses, you can speak back to this evaluation in class, drawing links with and beyond the current learning context as relevant. For example, if students ask to stop doing so much reading, you can talk about the role of reading in their current and further learning and why it is valuable.

These kinds of extra evaluation inputs would layer the dotted line into Figure 6.6, which represents a focus for the lecturer not just on how to make adjustments more immediately, but also how to inform their own development as a teacher in the longer-term (such as learning to challenge tacit assumptions about the students in your class and use different kinds of examples in lectures, etc.). As noted in Chapter 1, the current ‘managerial turn’ in higher education globally towards more generic forms of compliance, measurement, rankings and so on may lead to requirements from our institutions to perform certain kinds of assessment and evaluation. Our compliance may be unavoidable. But lecturers and academic developers have agency; we can build on, supplement, and perhaps even critique these required practices in discipline or field-oriented ways that may be more meaningful and authentic for everyone involved. We can add to the more generic institutional assessment and evaluation policies and practices in ways that give voice to different kinds of knowers, different experiences of learning, and more specialized encounters with knowledge, knowing and context.

Conclusion

Perhaps the most visible and pressured part of any teaching and learning cycle for both lecturers and students is assessment – the feedback and marks students receive from lecturers and the feedback and evaluation lecturers receive from students. Assessment drives learning: if all of our actions within a module or course are given meaning in how they are judged or evaluated at the end, we are likely to work hard to create the strongest possible evidence for success, whether in a written task, a lecture, materials for students, etc. In spite of the enormous value of feedback and evaluation in both assessing successful achievement and in informing reflection for further learning and growth, research shows that these two aspects of learning are not always conducted in ways that further enable specialized knowledge and knower development in sustainable, longer term ways.

This chapter has argued that overly generic approaches to giving feedback and designing evaluation forms will not reliably create conditions necessary for

critical, specialized reflection and further learning. What is needed is to create opportunities to offer more specialized feedback events that enable students to think about and work more consciously towards achieving the *basis* for legitimate success, realized as the discipline's specialization code. In terms of evaluation, the prompts and questions provided need to enable students to feed back to lecturers the extent to which the curriculum, teaching and assessment are (and are not) helping them to do this. For both students and lecturers, feedback needs to be phrased in ways that offer informed choices related to addressing the immediate context, problem or assignment and that face forward, looking towards further work and learning.

In closing the teaching and learning cycle, which aims to induct students into communities of practice and identities marked by specialized, disciplinary knowledge and ways of knowing, being and doing, we need to carefully consider both feedback and evaluation as crucial tools in this process. A narrowed focus on quality in higher education as student satisfaction and meeting standards needs to be challenged; we need to reclaim feedback and evaluation as pedagogical tools that do far more than show evidence of quality in these terms. Quality needs to be understood as the provision of fit-for-purpose teaching and learning opportunities, where the overall purpose is socially just education and wider student success.

Questions for further reflection and action

- Consider the feedback you offer your students. Beyond looking at the language you use, what does the feedback centre on and what does this communicate to students? Formative, summative, sustainable? If you are predominantly commenting on issues related to the successful achievement of the specialization code, how are these phrased: as instructions that tell students what to do without saying why, or as questions that prompt students to think, make a choice, and put that choice into action? Questions that focus on getting students to think about what they mean and that point to valued disciplinary forms of meaning making are far more likely to enable longer-term learning and *cumulative* knower development.
- Consider your use of rubrics, if you do have these in your module or course. What kinds of information are students getting from these and does it represent alignment with the *basis* for success? How could your rubrics be rewritten to be more specialized in terms of how they guide students' preparation for the assessment and in how they provide feedback on students' work? If you are keeping your written comments brief, could you record a short voicenote outlining your expectations for the assessment and share this to supplement a written rubric? This may make focusing on the underlying purpose of the task easier and provide students with advice and help via a different medium than just text.
- Finally, consider how you do evaluation. If you are currently only using summative end-of-module forms provided by your department or faculty,

think about what feedback you have been getting from these and what you have been able to learn from them. Are there gaps for you in enabling reflection on your growth as a teacher? Try to identify a few areas you could ask students to help you think about and ask them to offer you formative feedback a few times over the semester, informally in class on a piece of paper. Read this feedback and look for patterns and common issues. This will offer you a way into thinking not just about your current modules and curricula, but also about how you can more consciously grow into the future.

Note

- 1 You may note that I am enacting semantic gravity (SG) differently here than in previous chapters, such as Chapter 4. There, stronger semantic gravity (SG+) denoted a social context, such as case study examples or contexts of application. Here, SG+ is a symbolic context: a text that students have to create. Part of the value and strength of these LCT tools and concepts is their adaptability to and within different contexts and problems.

References

- Boud, D. (2007). Reframing assessment as if learning was important. In D. Boud & N. Falchikov (Eds.), *Rethinking assessment for higher education: Learning for the longer term* (pp. 14–25). London: Routledge.
- Boud, D., & Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment & Evaluation in Higher Education*, 31(4), 399–413.
- Carless, D., Salter, D., Yang, M., & Lam, J. (2011). Developing sustainable feedback practices. *Studies in Higher Education*, 36(4), 395–407.
- Chick, N. L., Hassel, H., & Haynie, A. (2009). Pressing an ear against the hive: Reading literature for complexity. *Pedagogy*, 9(3), 399–422.
- Clarence, S. (2016). Exploring the nature of disciplinary teaching and learning using Legitimation Code Theory Semantics. *Teaching in Higher Education*, 21(2), 123–137.
- Deyi, S. (2011). Feedback or feed-forward? Implications of language used in giving feedback on students' writing. In A. Archer & R. Richards (Eds.), *Changing spaces: Writing centres and access to higher education* (pp. 47–58). Stellenbosch: SUNPress.
- Edström, K. (2008). Doing course evaluation as if learning matters most. *Higher Education Research & Development*, 27(2), 95–106.
- Gamble, J. (2009). *The relation between knowledge and practice in curriculum and assessment*. Concept paper commissioned by Umalusi (Council for Quality Assurance in General and Further Education and Training), October 2009. [http://www.umalusi-online.org.za/ur/publications/SIR/KNOWLEDGE%20AND%20PRACTICE%20\(J%20Gamble\)%20FINAL.pdf](http://www.umalusi-online.org.za/ur/publications/SIR/KNOWLEDGE%20AND%20PRACTICE%20(J%20Gamble)%20FINAL.pdf)
- Green, D. (Ed.). (1994). *What is quality in higher education?* Milton Keynes: Society for Research into Higher Education and Open University Press.
- Harvey, L., & Green, D. (1993). Defining quality. *Assessment & Evaluation in Higher Education*, 18(1), 9–34.
- Hlatshwayo, M. N. (2019). *'I want them to be confident, to build an argument': An exploration of the structure of knowledge and knowers in Political Studies*. (Doctoral dissertation, Rhodes University, Makhanda, South Africa). Retrieved from: <http://hdl.handle.net/10962/92392>.

- Kirk, S. E. (2017). Waves of reflection: Seeing knowledges in academic writing. In *EAP in a rapidly changing landscape: issues, challenges and solutions*. Proceedings of the 2015BALEAP Conference. Reading: Garnet Publishing.
- Kirk, S. E. (2018). *Enacting the curriculum in English for Academic Purposes: A Legitimation Code Theory analysis*. (Doctoral dissertation, Durham University, Durham, United Kingdom). Retrieved from: <http://etheses.dur.ac.uk/12942/>.
- Lamont, A., & Maton, K. (2008). Choosing music: Exploratory studies into the low uptake of music GCSE. *British Journal of Music Education*, 25(3), 267–282.
- Loughran, J. J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33–43.
- Martin, J. L. (2015). Musicality and musicianship: Specialization in jazz studies. In K. Maton, S. Hood & S. Shay (Eds.), *Knowledge-building: Educational studies in Legitimation Code Theory* (pp. 193–213). London: Routledge.
- Maton, K. (2013). Making semantic waves: A key to cumulative knowledge-building. *Linguistics and Education*, 24(1), 8–22.
- Maton, K. (2014). *Knowledge and knowers: Towards a realist sociology of education*. London: Routledge.
- Maton, K., & Doran, Y. J. (2017). Semantic density: A translation device for revealing complexity of knowledge practices in discourse, part 1 – wording. *Onomázein*, 1, 46–76.
- Myers, L. P. (2016). Knowledge structures and their relevance for teaching and learning in introductory financial accounting. *South African Journal of Accounting Research*, 30(1), 79–95.
- Orsmond, P., & Merry, S. (2011). Feedback alignment: Effective and ineffective links between tutors' and students' understanding of coursework feedback. *Assessment & Evaluation in Higher Education*, 36(2), 125–136.
- Szenes, E., Tilakaratna, N., & Maton, K. (2015). The knowledge practices of critical thinking. In M. Davies & R. Barnett (Eds.), *The Palgrave handbook of critical thinking in higher education* (pp. 573–559). New York: Palgrave Macmillan.
- Tilakaratna, N., & Szenes, E. (2020). (Un)critical reflection: Uncovering disciplinary values in social work and business reflective writing assignments. In C. Winberg, S. McKenna & K. Wilmot (Eds.), *Building knowledge in higher education: Enhancing teaching and learning with Legitimation Code Theory* (pp. 105–125). London: Routledge.
- van Heerden, M. (2018). *What lies beneath tutors' feedback? Examining the role of feedback in developing 'knowers' in English Studies*. (Doctoral dissertation, University of the Western Cape, Cape Town, South Africa). Retrieved from: <http://etd.uwc.ac.za/handle/11394/5765>.
- Wacquant, L. J. (1989). Towards a reflexive sociology: A workshop with Pierre Bourdieu. *Sociological Theory*, 7(1), 26–63.
- Wolff, K. E. (2015). *Negotiating disciplinary boundaries in engineering problem-solving practice*. (Doctoral dissertation, University of Cape Town, Cape Town, South Africa). Retrieved from: <http://137.158.155.148/handle/11427/16937>.

7

AFTERWORD

From access to success

I do not actually think this can be a *conclusion* because the challenges this book has sought to tackle and propose responses to are ongoing, as are the conversations and debates around what we need higher education to do and be to create more socially just, equitable learning and teaching environments. To this end, this concluding ‘chapterette’ looks forward to how we might go forward from the contribution this book has made to understanding and changing teaching and learning practice against the backdrop of a complex, layered higher education system. Specifically, this afterword will focus on pulling together a few key threads around the central idea of the book. The larger thread is that we need ‘better’ rather than ‘best’ teaching and learning practice that recognizes and values diversity and is focused on a systemic conceptualization of socially just, equitable student access and success. The smaller parts of this thread are: first, that this better practice considers both knowledge and knowers and contextualized and abstracted ways of knowing, doing and being, and second, that to address disciplinary knowledges and ways of knowing, we need specialized and theorized solutions to teaching and learning challenges.

Chapter 1 opened this book by pointing to key trends in national and international political, economic, social and environmental spaces that have impacted higher education, from how universities are managed and their purpose and structures conceptualized, down to everyday administration, teaching and learning. We live in a globalized world marked by significant interconnection, interdependence and movement of people, labour and goods. Almost all of us are in larger and smaller ways caught up in capitalism and consumerism, which is individualistic at an ideological level. We are the masters of our own destiny, according to this system, and whether we rise or fall depends on the choices we make and the effort we put in, which may be understood independently of systems that make some choices possible for some people but not for others and render the efforts of some far more successful than the same efforts of others.

In capitalist systems, driven by the existence of the market where people and goods are available to be bought and sold, there is fierce competition for resources: jobs, places in good schools, places in top universities (or universities more generally), housing, and so on. We are taught that everything we have has been won through our hard work, fortitude and independent striving – that universities and societies are meritocratic (Sobuwa & McKenna, 2019). Even in countries in the Global North that have adopted more socially developmental policies such as universal healthcare, the logic of capitalism places a premium on individual success and hard work, rather than a broader sense of communal or systemic efforts towards enabling collective success. What this means for higher education is a pervasive notion that if you are motivated enough, work hard enough, have the ‘right stuff’ in terms of academic and personal skills and abilities you will succeed, even against significant odds, such as coming from a poor or working class background, going to a poorly resourced school, having to take out crippling loans to pay tuition, or working part-time jobs to survive while you study. The flipside of this is that if you do not succeed, then you do not have the ‘right stuff’ – the motivation, drive, and passion that a capitalist ideology places a premium on.

This way of thinking places the onus for succeeding onto the shoulders of individual students and lecturers and pretends that we are all working within a system that is fair, socially just and equitable in the ways it offers access to the means for achieving success. However, a significant amount of research and the experiences of many students and lecturers around the world show that higher education, like the societies it serves and reflects, is generally not fair, socially just or equitable. Universities, too, whether overtly or tacitly, place a premium on students’ individual motivation, hard work and possession of the right skills, knowledge and dispositions as the primary means for achieving success. Teaching and learning, in this system, is designed to help students access and make sense of disciplinary knowledge and join a disciplinary community of practice, relying to a significant extent on pre-existing ways of knowing, doing and being (see also Bock, 1988). The act of teaching (including curriculum design and assessment) as a structural enabler of successful learning is largely absolved of the need to reflect deeply and critically about its assumptions regarding what success is, and what it can do (and does not currently do) to better enable success for all students.

This individualistic notion of success leads to the persistence of a particular kind of deficit thinking, which was discussed and critiqued in Chapter 5. Deficit thinking is a pervasive and powerful discourse in higher education, which essentially locates the lack of student success within students’ inability to work in the ways required in the disciplines and their lack of ‘skills’, such as writing, reading and language proficiency (Smit, 2012). While it is the case that many students do enter university having had less time working with texts, less time with computers, and in need of additional time and help in working in more effective, expected ways, the point here is that what students lack or require needs to be overtly linked to seeing society and education as structurally uneven and unequal. Where it is not, the ‘blame’ for the perceived deficit is directed at students, rather than at the unequal systems they have had

to participate in to get to university in the first place. These kinds of deficit thinking misunderstand that success is more likely an outcome of a systemic approach to education premised on equity and justice, rather than as an outcome of a system concerned with the reproduction of privileged knowledge, knowers, and ways of knowing, doing and being. This is the first thread I am drawing into this Afterword: the tension between the belief that success is an individual endeavour on the one hand, which largely shapes the current status quo in higher education, and on the other hand, evidence that success is enabled for some and stymied for others by systemic structures that typically seek to maintain an inequitable status quo.

Theorizing the individual within the social

This book, allied with similar research in the sociology of education, takes the position that success is not wholly an individual endeavour, even though we as individuals have to make choices that shape our success or lack thereof. Without a more equitable, socially just approach to teaching and learning many students are likely to continue their present struggles to achieve meaningful success in higher education. To change this status quo, we need better approaches to practice that disrupt dominant notions of success and the forms of knowledge and knowing that are legitimated as the basis for that success. One part of the overall argument this book has advanced is that not only is systemic change possible, it is imperative if we are truly committed to furthering higher education's role as a social good, able to contribute to both individual and societal economic and social development. Higher education is both a public, social and private, individual good and to be both we need to understand that there are both individual and social dimensions to student success. As individuals we exist as part of, rather than apart from, different social and socializing contexts and structures and these have the power to shape our agency and life chances to greater and smaller extents. University teaching and learning structures and agents can make significant and necessary contributions to changing the social and socializing structures within the disciplines and the university, to open up critical spaces for a meaningful diversity of legitimate knowledges and knowers.

One of the main ways to do this, as I have argued throughout the book, is acknowledging the interplay of both dimensions of successful learning, individual and social, and working to clarify and characterize the nature of the 'social' in which teaching and research is done. In essence, this means looking closely and critically at the two key components of learning: knowledge and knowers. We need to understand that all learning involves not only specialized or particular forms and bodies of knowledge – theoretical, procedural, technical, vocational, practical and everyday – but also specialized or particular ways of being a knower of that knowledge. This implicates the methods we use to access, create and share knowledge, the beliefs, values and ethics we hold in relation to the knowledge, and how we connect the knowledge we have now to past and also as-yet-unknown future learning and knowledge. This is what this book has called 'ways of knowing, being and doing'. To

enable individual students to achieve educational and personal success through higher education, they need to join and become members of social and socializing communities of disciplinary knowers. They join these communities through their possession of specialized sets of knowledge and associated ways of knowing, doing and being. You cannot reasonably expect to have the one, then, without thinking very carefully about how you realize the other.

Chapters 2 and 3 looked in depth at disciplinary knowledge and knowers using the Legitimation Code Theory (LCT) dimension of Specialization. This dimension theorizes and visually captures the ‘social/symbolic’ duality of practices (Maton, 2014), in this case disciplinary curricula. The chapters posit that in all practices the legitimated ‘social’ that is recognized as valuable and worthy of reproduction always comprises both specialized knowledge and specialized knowers. The work of educators – lecturers and academic developers – is to use the theory offered here to work out the nature of the social and socializing practices they are shaped by and are teaching students to acquire and make sense of. In clarifying the principles that lie beneath curriculum, teaching and assessment decisions, and seeing how these organize teaching and learning values, practices and structures, educators are better positioned to both enable students to more successfully become knowledgeable knowers (Chapter 2), and critically reflect on and change knowledge and knower structures in their disciplines as well (Chapter 3).

The curriculum is representative of the big D Discourse of the discipline (Gee, 2015, p. 4) – its ‘ways of behaving, interacting, valuing, thinking, believing, speaking, and often, reading and writing that are accepted as instantiations of particular identities, or ways of being “people like us”’. It is the most accessible means we have in higher education for opening the door to disciplinary knowledge and ways of knowing, being and doing, and inviting students to walk in, make themselves at home and become part of the discipline as knowers. This makes it a powerful educational tool that can act as either a gatekeeper or as a facilitator of knowledge and knowing, depending on how the social/symbolic nature of the discipline is understood, and also on how actively educators are willing to harness their agency to make more equitable, just choices in curriculum design.

If we see the curriculum as a reified structure, immutable and enduring, then it is quite likely in increasingly diverse student and faculty bodies that many will experience the curriculum as a gatekeeper, bound to exclude rather than include certain bodies, histories, knowledges and ways of knowing and being. But we need to understand, as especially Chapter 3 argues, that curriculum design is enabled through choices and that these choices are shaped by dominant, yet often tacit, ways of valuing and positioning certain knowledge and certain knowers above others. But choices can be made differently; we are not bound to repeat past iterations of the curriculum over and over without hope for change. As educators, we can and must insert our own agency as disciplinary knowers into the mix and create critical and thoughtful spaces for critiquing and changing the status quo in contextually relevant and necessary ways. Choice and agency are essential for moving towards better teaching practice and wider student success.

When we have worked out the nature of social and socializing practices in our discipline or field and have designed a curriculum that offers students access to what counts as valued knowledge and ways of knowing, being and doing, we need to enable them to master these successfully. Chapters 4 and 5 used a different dimension of LCT, Semantics, to theorize knowledge and knower structures as ways of making meaning. Universities are not concerned so much with students having knowledge and reproducing it in skilled or practiced ways; they are far more interested in students developing the ability to understand and use knowledge to make sense of the world and to formulate and solve pressing problems. This requires the ability to access, unpack, use and create *meanings*. But these meanings need to serve a dual purpose: they need to help us make sense of the present context, problem or task we are working on, and they need to be taken forward with us to be added to and adapted in relation to future and other contexts, problems, and tasks. This is the second thread I am pulling into this Afterword: that widened success requires students to have both contextualized and abstracted ways of meaning, knowing, being and doing and that these need to be consciously, cumulatively taught and learned.

Connected forms of meaning making and knowledge building

What we think of as disciplinary knowledge – how to perform a chemical analysis using titration, the definition of legal subjectivity, string theory, a method for dyeing textiles – may be reduced to information to be learned and reproduced in students' minds unless it means something within a larger context. Why do we perform chemical analysis? Why do we need to know what a legal subject is and how we can become one? What does string theory say about the way the universe was created, and how it works? What is the purpose of dyeing the textiles in the first place? Unless there is a meaning attached to knowledge within the curriculum and that meaning makes sense of and in relation to other meanings, implicating knowledge and ways of knowing, doing, and being, the power of knowledge to specialize and transform students into disciplinary knowers will be limited.

Chapter 4 in particular uses Semantics to challenge the notion that teaching is about presenting students with knowledge (including practical, procedural, technical and theoretical knowledge), rather than about showing students what the selected curriculum knowledge means within and beyond the discipline in deliberately or consciously connected ways. Semantics enables us to theorize the extent to which meanings are dependent on specific contexts to make sense as well as the relative complexity of meanings condensed within them. We can use the semantic wave, as Chapter 4 does, and the semantic plane, which Chapter 5 adds, to think about what kinds of meanings we most want or need our students to develop and create. We can then work backwards from that to an understanding of how the teaching is enabling and undermining meaningful learning.

When we make sense of the world, or some part of it, we are always making connections: between different pieces of the same kind of knowledge, between

different kinds of knowledge (e.g., procedural and theoretical), and between the knowledge and who we are and how we need to act in relation to it. Yet, because we do this work all the time as disciplinary knowers, often without even thinking about how we do it, these ways of making meanings and building knowledge become tacitly known and enacted. In the disciplines, those who claim the position of expert or specialist knower – usually the lecturers and professors who both teach and do research – often struggle to see the *processes* they use to create increasingly complex, contextually relevant meanings as strange (Bharuthram & McKenna, 2006; Jacobs, 2005). This means that they struggle to put themselves into the shoes of a novice student who is trying to work out what sense they need to be making of all the knowledge and ways of knowing, being and doing.

Being able to appreciate the strangeness of your own disciplinary knowledge and ways of knowing, doing and being, and see how they are specialized rather than generic, is necessary for enabling more conscious, specialized and cumulative meaning- and knowledge-making through teaching. The focus of Chapter 5 in particular, is on challenging and moving beyond the false binary between ‘content’ and ‘skills’ to appreciate the interconnectedness of specialized disciplinary knowledge and the ways in which we require students to think, speak, read, and write about what they know and how they know it. The discussion here pulls through a part of the argument made in Chapter 2, which looks at the current preoccupation across higher education contexts with enhancing generic employability skills and attributes. This drive for employability tends to reduce complex, specialized disciplinary teaching and learning to decontextualized sets of skills and ‘contents’ that students can, supposedly, learn outside of the disciplinary contexts they are specializing in and ‘transfer’ between contexts. Chapters 2, 4 and 5 connect up the conversation about the specialized nature of higher education knowledge and knowing, showing that how the meanings that we consider important and valuable in our disciplines are not just about what we know; they are also about how we know, what we do with what we know, and how it shapes who we are in quite particular, contextualized ways.

Underpinning higher education’s missions of ‘producing’ knowledgeable and highly skilled graduates, and contributing to knowledge building through research (Green, 1994) and community engagement is a notion that learning is not bound by the timeframes attached to an undergraduate (or postgraduate) degree or diploma programme. Rather, the goal is to enable lifelong learning, in that students will need to keep acquiring, making sense of, and working out how to use new knowledge as they move into and through their chosen professions or careers. What this means for teaching and learning and a notion of ‘better’ practice within and across the disciplines that aims to develop knowledge and knowers in specialized ways, is a focus on the future as well as on the present in curriculum design, assessment and feedback. This is the final thread I am pulling through here: the need for successful teaching and learning to be critically reflective and able to use the past and present to look toward and build for the future.

Teaching from the present towards future knowing, doing and being

Basil Bernstein, an educational sociologist whose work arguably theorized education within a social justice framework, put this thread into eloquent terms when he argued that what higher education offers students is not only knowledge of the thinkables – what we already know and can do and be – but crucially, knowledge of the unthinkableables and yet-to-be-thoughts (Bernstein, 2000). These meanings have a material base or a particular context that they connect to and in relation to which they make sense. But higher education has to also enable meanings to transcend these local contexts, especially meanings that shape how we come to know and become particular kinds of knowers. Without this transcendent or abstracted dimension, knowledge becomes context-bound, unable to speak to future learning, as-yet-unknown contexts and problems to be solved and as yet unrealized ways of being in the world (see Bernstein, 2000; Maton, 2014).

Chapter 6 looks at the possibilities of future learning and development through changing feedback and evaluation practices to invite critical, *forward-looking* reflection. Reflective practice within education is generally aimed at identifying a problem or area for development and then working out a solution (Loughran, 2002). Yet a good deal of feedback to students that has forward-looking reflection as its intention tends to actually focus students on immediate problems and short-term solutions, such as revising one draft text or correcting errors within one text, whether substantive or procedural (related to disciplinary knowledge, or to the style and form of the writing). While for some students, receiving a decent amount of this kind of feedback may lead to more cumulative, forward-looking understandings of the discipline and what they need to do to improve their work on an ongoing basis, there is a good chance that for many students the intention of deeper, sustainable learning will be under-realized. This may well be a result of focusing on the role of feedback as identifying a problem that exists in the present and solving it in the present without carefully considering meanings and learning beyond that context.

Much feedback is hard for students to use as a learning tool because it is expressed in ways that are overly context-bound and therefore limited in application to future contexts. In writing centre scholarship this has been expressed as a version of trying to develop the writing, rather than the writer (North, 1984). In other words, the focus is the product of the learning and writing as a fixed point in time, rather than as part of a process of becoming a specialized, able knower that begins at university and continues beyond into students' extended personal and professional lives. Chapter 6 also looks at a different form of feedback that has the same, longer-term intentions: evaluations of teaching practice (mainly by students). Like feedback, evaluation is designed, in theory, to give lecturers insights not only into experiences of the present module and problems that need to be addressed in the next iteration, but also feedback they can use to think further into the future. This feedback can then be used to develop new and different approaches to teaching and engaging with students and can provide insights to inform personal

and professional development. Yet, when done using generic, tick-box university course evaluation forms, a great deal of evaluation focuses too much on the present, to the expense of longer-term, deeper reflection and change.

To explore the role of feedback and evaluation in guiding and enabling deeper, ongoing reflective practice for students and lecturers, Chapter 6 draws on Specialization and Semantics as a theoretical framework. Specialization is used to look first at the kinds of meanings that need to be focused on in either giving or asking for feedback; Semantics is then used to explore ways of framing and expressing feedback and evaluation to make it useful both within the present context and beyond it (e.g., in future assignments, further years of study, and work outside of the university). In essence, the chapter argues that to truly enable students and lecturers to develop as successful lifelong learners, feedback needs to deliberately and consciously feed forward from the present into future contexts. It also needs to do this in ways that connect with the specialized meanings that are important both within the present context and to working successfully in similar future contexts, so those receiving the feedback need to be able to extract principled or abstracted learning they can add to in future work.

Bridging gaps through socially just teaching and learning practice

Throughout the preceding chapters, I have explored different aspects of successful teaching and learning practices, underpinned by a desire to create a theoretically grounded approach to creating better, forward-looking educational practices that enable wider student success. For many students and lecturers there are significant gaps between what is expected and required by the university and the disciplines for success to be achieved and what students understand and are able to do in response. One of the ways in which we can bridge gaps in achieving more successful, meaningful learning and becoming in the disciplines is through changing that ways in which we work with knowledge. Students need to understand that knowledge is a tool and that when we respond to tasks, problems and questions as disciplinary specialists, we have to find, select, understand and use what we currently know and can do to create new knowledge and understanding. We cannot do this if we see knowledge as a possession, something we seek to have and perhaps reproduce when required in particular contexts at particular points in time.

If teaching and learning is primarily set up to provide students with sets of knowledge – what is often termed ‘curriculum content’ – and with sets of ways of working with that content, either generic or specialized – often termed ‘skills’ – what tends to happen is that a great deal of the hard and essential work of making all of that mean something within and beyond the learning context is left to students. That some students can make this work and respond in ways that the discipline values is not an indication that the rest need to try harder, or be better prepared for university, or speak and read and write better in the language of instruction. The uneven nature of student success across different higher education contexts is linked to the uneven distribution of the means for achieving success within the larger societal structures the

university is part of. While many individual students are underprepared for university study, this book has argued that they are underprepared as a result of non-individual factors, such as being working class and having access to less well-resourced schools, libraries, sports clubs, and perhaps little or no access to computers. Universities need to recognize and account for the systemic nature of privilege and students' ability to cope, or not cope, and address this on multiple levels. The focus of this book has been at the level of the classroom and the teaching and learning we enact there.

Notwithstanding national and regional particularities, higher education on a systemic level privileges some forms of knowledge and knowers over others and unevenly distributes access to the 'goods' of higher education through teaching and learning structures that acknowledge and reward some ways of knowing and disregard others. For students who are non-mother tongue English speakers, assessment that tacitly privileges fluency in English and a particular understanding of what counts as 'good' English (Bailey Bridgewater, 2017) may experience a gap between what they write and the feedback (and mark) they receive. They may do poorly for reasons that have less to do with how knowledgeable they are and more to do with how well they write. This gap will be difficult to bridge unless there is some change in the ways assessment practice is done, which would require changing the values underpinning it. The work cannot all be for students to do, leaving the exclusionary values shaping that assessment practice untroubled. For students who have to work part-time to support themselves and also their families, a situation many working class students find themselves in, timetables and modes of instruction that privilege students who can be on campus all day within working hours will create gaps that working students cannot bridge alone (Jones & Walters, 2015). The system itself will need to change to recognize alternative ways of being a student and engaging in learning, which need to be reflected in curriculum design, teaching practice and also lecturer expectations.

These are just two examples of the ways in which higher education privileges some and excludes others, thereby continuing to reproduce a status quo that is not socially equitable or just. There are so many others, written and spoken about in peer-reviewed research, in the popular presses, and in cafeterias and corridors in universities around the world. Higher education is asked to play a greater role in social and economic development in many countries – not just to produce skilled labour, but also to educate critical citizens who can contribute to civic life (see Giroux, 2002). But we cannot grow our economies and societies in representative, just and equitable ways if universities continue to pay only lip service to genuine transformation and sustainable change: to the kinds of knowledges and knowers they value, to the ways in which teaching and assessment enable all students to access meaning- and knowledge-making practices in the disciplines, to the ways in which we communicate to students our expectations and what they can do to meet, and perhaps also critique, these.

This, in my view, is socially just education: education that focuses on an as-yet-unknown future and concerns itself with preparing students to meet that future head-on, equipped with the means to solve problems, interact across

social, cultural, gender and national lines and boundaries, and remake the world in a fairer image. This sounds idealistic, I know. But if this is not the goal, what are we really doing at university as teachers, as researchers, as academic development practitioners?

We can continue to teach as we always have, reproducing an unequal, unfair system that has always privileged the few over the many. We can look to short-term solutions to problems with student learning: send them to a literacy or writing support service, add online elements and materials for students to access off-campus, design new kinds of assessment tasks. Some of these changes will work and some will not. If we are working with an understanding of success as an individualized endeavour resting on students' shoulders and assuming the same starting line for everyone, we will ultimately blame students when the changes we make fail to work as envisaged, or perhaps even blame ourselves.

Blame is a vicious cycle that is context-bound and cannot move any of us forward in productive directions. What we need is a way of working that lifts us out of our local contexts and enables us to look at ourselves as teachers, at the work we are doing, and at our students, differently. We need a way of analyzing, critiquing and understanding the deeper nature of what we are teaching, what our students are learning and what meanings the knowledge and knowing take on within different disciplinary and professional contexts. Without this 'holding structure', we are bound to our contexts and to a blame-game that has no end in sight.

Theory with explanatory, transformative power

The theoretical framework offered in this book is Legitimation Code Theory (LCT). The tools for theorizing teaching and learning in this framework are useful for a number of reasons, outlined in Chapter 1. In light of the concluding discussion here, what is most useful about the LCT way of theorizing teaching and learning is that it not only provides powerful explanations of what is happening in the present, it offers ways of creating changed future practice and outcomes. We need to use theory to understand our teaching and our students' learning because theory is abstracted from specific contexts and its primary purpose is to explain why what we see and experience is happening. This explanatory role is what gives theory its power in education: how do we make meaningful, longer-term changes if we cannot clearly see and understand what the problem is? However, not just any theory will do.

Theories that continue to support individualistic, meritocratic views of higher education have limited explanatory power in most higher education contexts, because there is just too much diversity in students' socioeconomic, linguistic, cultural and ethnic backgrounds. The assumptions we may have been able to make before shifts from 'elite' to 'mass' higher education systems (Trow, 1999) about students' ability to transition successfully into higher education with minimal lecturer assistance are no longer applicable, if they ever were. Holding onto them contributes to creating university systems that privilege fewer and fewer students

over the many and leads to the kinds of student protests we have seen in recent years in both the Global North and South. Yet, exclusionary, unfair assumptions about students underpinned by a belief that success at university is all about hard work, self-regulation and a good command of the language of instruction are surprisingly resilient, even in the face of the changes to student and faculty bodies over the last four decades especially. To challenge, and change, these assumptions we need theory that offers us an explanation of learning and the role of teaching that more closely reflects students' and lecturers' lived realities.

This means that we need theory that understands the systemic nature of higher education, and of the wider social, economic and cultural goods that students and lecturers have access to. Universities are not separate from society, so the lecturers and tutors they employ and students they educate will be products of and contributors to society: they will come from working and middle class homes and as such will have very different kinds of formative educational, personal and social experiences. Some of these are well aligned with the expectations of universities, but many are not. Higher education as a social and economic structure is set up, by and large, to reproduce society's elite, because until quite recently in our collective history, higher education was an elite enterprise – expensive, exclusive and out of reach for many poor and working class students. This is no longer the case in many countries. In the many debates around access and success that have been held over the last 30–40 years, one thing that has become clear is that we need to theorize the systemic, structural nature of higher education to better understand how to enable individual and collective success.

Without this deeper understanding of how higher education works to include and exclude, value and devalue, reward and discard, it is unlikely that we will be able to systemically change our approaches to doing teaching and learning in more socially just, equitable, forward-looking ways. LCT draws on sociological, philosophical, linguistic and anthropological approaches to enable relational theorizing that can see, understand and explain the social *and* the individual nature of success, the specialized *and* socialized nature of both knowledge and knowers, the value of being able to create and use knowledge both within *and* beyond local or specific contexts. Through the two dimensions explored in this book – Specialization and Semantics – which represent underlying organizing practices, or sets of 'rules of the game', LCT allows us to visually map, draw, represent and reimagine the practices that comprise teaching and learning: curriculum design, student-lecturer engagement, assessment, feedback and evaluation.

Across the five substantive chapters (Chapters 2–6), this book has explored five connected challenges that lecturers and students across different university contexts grapple with on a daily basis. At their core, these issues are all concerned with how we can work differently as educators to move beyond widening access to widening meaningful *success* for all students. Especially, for students who have previously been excluded from harnessing the means to understand, use and create knowledge that is socially powerful and transformative. This is crucial for the development and growth of more equitable, fairer societies that recognize a plurality of knowledges

and knowers as valuable and worth reproducing. This recognition is important as we move further into a future marked by increasing social, political, economic and environmental uncertainty and change, as problems and their solutions become increasingly shared and global in nature and difficult to solve alone without recourse to specialized knowledge and knowers.

Courage, dear friends

In closing, what I have hopefully offered you in these chapters as a reader and fellow educator is not just a cool set of theoretical tools and a way into reimagining and rethinking aspects of your own teaching or educational practice. What I also want to offer is hope and courage. Change is difficult and it takes both mental and emotional energy and time, both of which feel like they are increasingly stressed in higher education – and everyday life – today. Change is especially hard when you feel you are alone in wanting to make it happen, or when you have limited support, help and encouragement within your department or faculty. But as the old saying goes, the only thing in life that is certain is that things will, and must, change. The ways in which we theorize learning and teaching and create the conditions within our contexts for students to not only succeed, but also to thrive, need to change. I hope that in reading this book your own concerns and questions have been recognized and heard, and that you are inspired to use your own agency and energy to make changes in your context with your own students and colleagues. Your efforts to create meaningful, socially just changes where you can will matter to your students, and ultimately to the communities you all connect with and serve, now and into the future.

References

- Bailey Bridgewater, N. (2017). Diversifying monolingual tongues. In S. Clarence & L. Dison (Eds.), *Writing Centres in higher education: Working in and across the disciplines* (pp. 97–110). Stellenbosch: SUNPress.
- Bernstein, B. (2000). *Pedagogy, symbolic control and identity: Theory, research, critique* (revised ed.). London: Rowman and Littlefield.
- Bharuthram, S. & McKenna, S. (2006). A writer–respondent intervention as a means of developing academic literacy. *Teaching in Higher Education*, 11(4), 495–507.
- Bock, H. (1988). Academic literacy: Starting point or goal? In G. Taylor, P. Nightingale & J. J. Clanchy (Eds.), *Literacy by degrees* (pp. 24–41). Milton Keynes: Open University Press.
- Gee, J. P. (2015). *Social linguistics and literacies: Ideology in discourses* (5th ed.). Abingdon: Routledge.
- Giroux, H. A. (2002). Neoliberalism, corporate culture, and the promise of higher education: The university as a democratic public sphere. *Harvard Educational Review*, 72(4), 425–463.
- Green, D. (Ed.). (1994). *What is quality in higher education?* Milton Keynes: Society for Research into Higher Education and Open University Press.
- Jacobs, C. (2005). On being an insider on the outside: New spaces for integrating academic literacies. *Teaching in Higher Education*, 10(4), 475–487.

- Jones, B. & Walters, S. (2015). Flexible learning and teaching: Looking beyond the binary of full-time/part-time provision in South African higher education. *Critical Studies in Teaching and Learning*, 3(1), 61–84.
- Loughran, J. J. (2002). Effective reflective practice: In search of meaning in learning about teaching. *Journal of Teacher Education*, 53(1), 33–43.
- Maton, K. (2014). *Knowledge and knowers: Towards a realist sociology of education*. London: Routledge.
- North, S. M. (1984). The idea of a writing center. *College English*, 46(5), 433–446.
- Smit, R. (2012). Towards a clearer understanding of student disadvantage in higher education: Problematising deficit thinking. *Higher Education Research & Development*, 31(3), 369–380.
- Sobuwa, S. & McKenna, S. (2019). The obstinate notion that higher education is a meritocracy. *Critical Studies in Teaching and Learning*, 7(2), 1–15.
- Trow, M. (1999). From mass higher education to universal access: The American advantage. *Minerva*, 37(4), 303–328. <https://www.jstor.org/stable/pdf/41827257.pdf>.

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