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Unbundling the University Curriculum

MOOCs, Online Program Management and the Knowledge Question

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The current state of higher education perpetuates fatalism, where choice and decision-making towards equity and change has been replaced with bottom-lines and return on investment. This series disrupts this present state of higher education by sharing the stories, actions, and research of students, academics, and administrators in higher education that begin with humanity, equity, and change. It highlights the work of scholars at all stages of career (emerging, mid-career, senior) as well as students beginning their experiences in higher education. Edited, single-authored, and co-authored texts all contribute to new discussions around what is possible in higher education when students, academics, and administrators push their capacity to create possibilities grounded in the ethical and political. This series offers a variety of provocations to rethink teaching, research, policies, and procedures in higher education and working towards local and global change and engagement.

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MOOCs, Online Program Management and the Knowledge Question

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Foreword

There has been a lot of talk about changes in universities in recent years—the costs, the cuts and casualization of academic staff, 'cancel culture', the new technology opportunities, the global competition and rankings, the failure to seriously dent the social inequalities of access. This book provides a fresh take and new insights on an aspect of the changes that is harder to see and whose implications are often harder to grasp. This is the impact of new directions for online teaching on the content and foundations of what is now being put in place for students to learn. Is online learning re-shaping what students are introduced to in their universities studies as well as how effectively they learn? And what potential effects might it have on professional training and disciplinary forms of knowledge going forward?

Kate O'Connor takes up an aspect of higher education—its curriculum across different fields and disciplines—that is often invisible at the centralized points where new teaching policies are being created. Using close-up studies of university leaders and of university teachers developing online courses across a diverse range of subjects, this book sets out to examine what kind of knowledge, skills, and orientations are now being set in train. When university teachers in subjects as diverse as classics, ecology, logic, teacher education, and business studies re-develop subjects within the new parameters, what new constraints do they experience, and what new emphases and omissions result? Or to put it another way, there has been a plethora of research and attention to how students learn, with whole new fields of learning analytics springing up to service these, but far less attention to changes in the underlying directions of what they learn.

Part of this book explores what is driving new directions at the university level. Pressures on costs and global and national competition for students is part of the background here, but so too is an interest in what can be done to drive better teaching and greater student satisfaction. One common strategy has been the setting up of centralized university teaching units and mechanisms to support and assess teaching across the university. Another is a drive to make greater use of new technologies and online learning. So far, so apparently 'common sense'. But this is where the qualitative approach of Kate O'Connor's research can be eye-opening. Her case

studies are Australian, but similar stories can be heard in many other places. And as with good qualitative research, her purpose is not to claim that everything is happening in the same way everywhere, but to let us see, close-up, how people operate in particular contexts and conditions, so that we can think further about these problems and the specificities that come into play.

The book interrogates what university executives are actually assuming about 'good teaching'. In Chapter 5, O'Connor quotes interviews with senior people from two quite different universities who are trying to drive the online developments and who also see it as part of their mission to improve teaching in their university more generally. One is a vocationally oriented university offering mainly courses with direct industry and professional links (but not law or medicine). The other is an older university with a more traditional array of 'pure' as well as 'applied' disciplinary and interdisciplinary fields.

The two institutions set up different approaches to their online endeavors, and had different views about (and different degrees of respect for) the academics who worked in them. But the two institutions shared quite an array of assumptions about good teaching: that left to their own devices, academics include too much content and tend to teach the same things year after year; that good teaching is 'constructivist', but with little sense of what this means other than students need to be seen to be active; and that assessment is a primary focus, with course content carefully scaffolded toward that end point.

Again, all of these assumptions may seem uncontroversial. The strength of O'Connor's work is how it goes on to show some of the things that actually are embedded in such an approach. Chapter 5 is full of gems of comments from university administrators about their intentions, accompanied by a balanced but pertinent critique by O'Connor. She shows that particular formats are structurally more constrained and narrow in what they make available to and expect of students, and that they are more likely to be 'fixed' from year to year and less likely to convey openness or ambiguities or changes in the knowledge fields to which they are attached. She also shows that this is a more serious constraint for some disciplines and subject areas than others.

These arguments are demonstrated in more detail in the subsequent chapters of the book which go on to follow the experiences of those developing the new courses. One of the strengths of the book is its appreciation of the thinking and motives of those who feature in the various case studies. These are not cynical people resisting change but people who value their fields and are trying to produce good programs in new circumstances. The close-up perspective shows why certain questions about appropriate curriculum are not just academic or to be judged by student satisfaction. Some with close industry links are grappling with how to develop courses that not only reach a given end-point acquisition of what has been taught but that will set up students to be able to respond better as their industry changes. Others who are working in a science discipline nearer the purer end of the spectrum want students to understand the field and its changing questions, not just to learn findings as if static.

This book is an important contribution to the literature on contemporary higher education, and to the literature of the curriculum field. It raises afresh the significance

of considering all three of what Basil Bernstein called education's 'message systems', curriculum, pedagogy, and assessment, and that changes to any one of these is not likely to be neutral in impact on the other two. This impact is not always negative: the case studies depict lecturers acknowledging that the move to online modes has led them to give greater attention to refinement and clarity of key concepts, as well as to the structuring of the program over time. But they show too that even the attempt to get a more effective fit between assessment and course content is not always a positive when it starts with and over-prioritizes assessment and backward maps the content demands from that. In Chapter 6, O'Connor relates examples of lecturers in different disciplines worrying about whether the 'unbundled' modes are forcing them to focus on 'what could be measured rather than what was educationally desirable or valued', and making it more difficult to draw students into a sense of an evolving field where they could ask new questions. As O'Connor suggests in her conclusion, the new online modes were often promoted at university level as offering greater flexibility and openness but paradoxically brought with them a more instructivist and didactic underpinning.

In its concluding chapter this book draws attention to big issues that are of both conceptual and practical consequence for current reforms in higher education. It raises questions about the ubiquity of 'constructivism' as the referent for 'good teaching' among those who drive whole of university reforms. Earlier chapters have shown a number of ways this reference point is vague and easily perverted as a whole of university analytics tool. A second concluding call is to ask university-level leaders to take more seriously the differences (purposes, concepts, forms of knowledge, relation to the outside world) between the different disciplines and fields that make up higher education. Of course these differences have been written about in the academic world, and are often heard in cases made by different fields for their value in the competitive world of universities and grants and national policies. But, as this book shows, the differences also have consequences for the problem of what constitutes 'good teaching'. The case study approach of this fascinating book takes the issues of difference between knowledge fields out of an abstract or tendentious realm and into a concrete one, where we can see university teachers grappling with particular subjects and fields of knowledge in the face of moves to new modes of delivery. In that case study work, O'Connor requires us to re-consider what has been 'unbundled' in recent strategies. It asks us to pay attention to curriculum and purposes in higher education, and not just to pedagogy and assessment abstracted from these.

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Acknowledgments

This book originated in a doctoral research project that set out to examine new developments in online learning in higher education using theoretical perspectives drawn from curriculum theory. Its central question was what is happening to knowledge: what counts as knowledge within the academic curriculum and how does this change when subjects are remade for partnership-based online learning initiatives? It was motivated by concerns about the lack of serious curriculum thinking evident in current approaches to higher education, and the issues this raises both for institutional policy directions and in relation to academic practice. I commenced this work in 2012 and the book was mostly written almost a decade later in 2021. Much had changed over this period. MOOCs (Massive Open Online Courses) had come and gone from public attention. Online learning and partnerships with online program management providers had grown significantly. Covid-19 had hit the university sector. Yet the issues evident in the original study have remained pertinent. In particular, the complexity of curriculum work in the university sector has continued to be ignored. I hope in revisiting the original study, this book inspires some more critical attention to the higher education curriculum, both within university governance and academic scholarship.

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Contents

Abbreviations

API   Application Program Interface
Austrade   Australian Trade and Investment Commission
EMC   European MOOC Consortium
LMS   Learning Management System
MOOC   Massive Open Online Courses
OPM   Online Program Management
OUA   Open Universities Australia

Chapter 1
Curriculum and Crisis in the Unbundled University

1.1 Introduction

The university is in crisis. In 2020, the global COVID-19 pandemic forced universities around the world to close campuses and shift learning online at short notice. Academics accustomed to teaching on campus scrambled to move materials and classes into new formats, often with minimal preparation time. Students were forced off campus and required to grapple with new platforms and requirements. International students were cut off from their intended countries of study, or isolated within them. Sharply declining numbers of international students and falling international markets decimated university revenues globally. Casual staff lost work and mass redundancy programs commenced. In Australia, where the research this book is based on took place, there were predictions that the sector stands to experience losses of up to A\$19 billion overall by 2023 (Hurley, 2020) and reports that more than 17,000 staff lost their jobs (Maslen, 2021). As Bayne et al. (2020) write, 'in this changed world, every faculty member became an online teacher, every student became a distance learner, and the very survival of some universities became entangled with their ability to manage the digital "pivot"' (2020, pp. 11–12).

Many have suggested that this crisis presents an opportunity to reimagine teaching practices and embrace new models of online learning. There has been talk of a new balance emerging between online and on-campus modes of teaching, and a move away from the overreliance on the physical world as the space for interaction and engagement (Bebbington, 2021; see also Eringfeld, 2021). In 2020, nearly 90 percent of chief academic officers at public institutions in the US reported plans to expand online programs in 2020 (Jaschik, 2020). Similar moves have also been evident in the UK and Australia, where a number of universities have announced new strategies centered on expanding online programs and the Australian Government has called on universities to embrace new models of discounted online courses (Batty, 2020; Carey, 2020; Matchett, 2020; Visentin, 2021).

These shifts have led to a surge of interest in partnerships with online program management (OPM) providers, companies that work with universities to support

and expand their online offerings (Holon IQ, 2021). In the US, 33 percent of chief academic officers at private institutions and 17 percent at public institutions have plans to use outside providers to expand online programs (Jaschik, 2020). Australian universities have announced plans to increase engagement with micro-credentials and micro-masters from online program management providers (Matchett, 2020), and education companies and technology businesses have accelerated marketing efforts, including to universities (Williamson, 2021).

However, although the COVID crisis is unprecedented, the arguments for online learning and partnerships with online program management providers that have emerged at this time are not new. In the first half of 2012, another crisis moment for universities was also said to be underway when three new education platforms were launched, promising to offer free, world-class university-level education to anyone in the world with an internet connection. These new ventures were Coursera, EdX, and Udacity. Their free offerings were termed MOOCs, an acronym for massive open online courses. Each venture was associated with professors from 'top' universities, namely Stanford, Harvard, and MIT. The MOOCs offered were typically short subjects, developed by academics within universities and subsequently offered fully online to very large numbers of students via partnership arrangements with some similarities to those now being sought with online program management providers.

The global response was overwhelming. Hundreds of thousands of students enrolled to undertake the new free MOOCs and hundreds of universities signed on to partnerships to develop the new courseware. *The New York Times* declared 2012 'the year of the MOOC' (Pappano, 2012) and newspaper headlines and public commentators were full of pronouncements about their revolutionary potential. The president of Stanford University, John Hennessy, declared that 'a tsunami is coming' that would eradicate universities not prepared to adapt to the reality of new digital technologies (Brooks, 2012). Udacity founder Sebastian Thrun proposed that in 50 years, the world's higher education could be delivered by only 10 universities (Leckart, 2012). In Australia, MOOCs were widely taken up by Australian universities keen to associate themselves with elite global universities and to position themselves as leaders within the online learning space. By the end of 2013, more than half of Australia's 40 universities were offering MOOCs or had partnered with a MOOC provider. According to popular commentary (Barber et al., 2013; Pappano, 2012), MOOCs were a response to a sector in crisis. Digital technologies would disrupt higher education as they had media, manufacturing, and other industries. Online education could be more affordable and more effective than face-to-face teaching, and was what students were looking for. Universities needed to embrace these possibilities in their teaching and MOOCs were one way they could do this.

Since 2020, there have been strong echoes of the earlier MOOC claims in the popular commentary on the current COVID-19 university crisis. Again, we are told that now students have experienced what online learning has to offer, traditional modes of delivery will be fundamentally changed (Barsotti, 2020). The crisis offers an opportunity for transformative change that will enable 'a world where academics mix and match course content to create knowledge on demand and allow students to design their own curriculum' (Barsotti, 2020). Online courses offer convenience

and flexibility and are likely to 'unbundle the prevailing model of higher education' (Smith, 2020). Universities have remained over-reliant on business models that privilege the physical world and if they don't respond, will again be at risk of being usurped by start-ups who can offer the same credentials online for a much-reduced price (Ashford-Rowe, 2020; Smith, 2020).

Since the onslaught of MOOCs, there has been a significant growth in partnerships with OPM providers globally, and this has continued to intensify within the context of the current COVID-19 crisis. Although OPM ventures differ from MOOCs in that the subjects offered are not massive or free, they tend to offer a similar model of online course development whereby subject content is developed within universities, and teaching and/or administrative support is offered by the OPM company for an upfront fee or in exchange for a share of the tuition revenue (Perrotta, 2018). This model of separating the creation and delivery of course content promotes what has been termed an 'unbundling' (McCowan, 2017) of educational services.

This unbundled online learning model has significant effects on how curriculum and teaching are structured and practiced in universities. There has been much debate about the implications of MOOCs and other unbundled online learning models (e.g. Bennett & Kent, 2017; Huijser et al., 2020; Jordan, 2015; McKay & Lenarcic, 2015; Perna et al., 2014; Walsh et al., 2020), but the focus has predominantly been on student learning and engagement.

This book takes a different and novel approach, looking instead at the effects of unbundling on curriculum and knowledge. It examines the form of teaching offered under both MOOC and OPM partnership arrangements, using the term 'unbundled online learning' to capture both models, and to explore their implications on curriculum practices. Contextualized within the contemporary moment, the book analyzes particular case studies of how universities responded to the MOOCs moment in the early 2010s through unbundled online learning initiatives (both MOOCs and OPMs). It considers the decisions and thinking of key people in these universities during that period and explores what these experiences offer for understanding the construction of curriculum and knowledge in unbundled online contexts and the challenges ahead in the 2020s. In a context in which explicit attention to the curriculum has been sidelined in universities' strategy, the book makes an argument for why curriculum matters, both in understanding the effects of unbundled online learning and its impacts on curriculum and knowledge practices in universities more broadly. The remainder of this chapter introduces the concepts of unbundling and curriculum and how they are taken up within the book and in the design of the underlying research project.

1.2   The Problem of Unbundling Curriculum and Pedagogy

The term unbundling has received increasing attention in the higher education literature since the MOOCs moment of 2012 (e.g. Bayne et al., 2020; Cliff et al., 2020; Gehrke & Kezar, 2015; Komljenovic, 2021; McCowan, 2017; Neely & Tucker,

2010; Robertson & Komljenovic, 2016; Swinnerton et al., 2020). Unbundling is defined as 'the differentiation of tasks and services that were once offered by a single provider or individual (i.e. bundled) and the subsequent distribution of these tasks and services among different providers and individuals' (Gehrke & Kezar, 2015, p. 96). It comprises the process of disaggregating educational provision into its component parts for delivery by multiple stakeholders, often using digital approaches (Swinnerton et al., 2020). Practices of unbundling, as McCowan (2017, p. 733) writes, involve 'the separating out of the institution into its constituent roles and different activities, and the cutting away of functions perceived to be superfluous, allowing the consumer to purchase only those elements desired'. They can occur across many levels from systems and institutions (where different institutions are structured for particular purposes) to courses and academic staff (McCowan, 2017). Unbundling is not a new phenomenon, and practices of unbundling are evident throughout the history of higher education (Gehrke & Kezar, 2015). However, current shifts in unbundling are, as McCowan (2017) writes 'far more radical than previous ones, and a greater challenge to our assumptions about the higher education institution', with 'an integral part of the process […] the unbundling of taught courses and academic work'.

This book focuses on the unbundling which occurs through partnerships with MOOCs and online program management providers to deliver online learning. These models comprise a separation of the responsibilities for curriculum and content development, which are typically allocated to academics within universities, from teaching and administrative support roles, which are typically handled by the online program management company. This results in little to no engagement between the academics developing the course content and the students taking the subjects. It means the pedagogy tends to be primarily defined by the online program management provider and its online platform requirements, with limited input from the academic developing the curriculum.

More typical forms of online learning developed and supported in-house within universities also involve unbundling practices. Neely and Tucker (2010) have suggested that online learning is leading to an unbundling of the academic role in teaching, as delivery activities are increasingly separated from the instructional role, and educational responsibilities redistributed to staff with different kinds of expertise such as learning designers, technologists, and academic advisers (see also Macfarlane, 2011). Unbundling is also evident to an extent in the increased casualization of university teaching, whereby sessional academics are assigned responsibilities for tutoring but not curriculum development (Kezar et al., 2014). This book focuses on the more extreme forms of unbundling evident in unbundled online learning models involving MOOC and OPM providers, but some of the tensions raised may potentially be applicable in other contexts where unbundling practices are evident.

Unbundling has been positioned as a solution to the crisis facing higher education (Craig, 2015), and shifts toward unbundled online learning have been primarily driven by financial imperatives (Ivancheva et al., 2020; McCowan, 2017). Unbundling is seen to provide opportunities to reduce the costs associated with teaching provision through standardization, as well as open up access to new student markets

that are otherwise excluded from higher education. Online learning more broadly is frequently positioned as a means of reducing the costs of educational delivery and as an attractive option for teaching large numbers of students, since once the initial set up expenses are accounted for, the costs of adding additional students are low (see also Bayne et al., 2020; Norton, 2013). This is particularly the case in OPM models, where teaching and administration responsibilities are typically assigned to the OPM provider, and is a key factor highlighted in OPM marketing materials. Coursera's website, for example, entices universities to engage its services to 'increase student capacity without increasing infrastructure costs' (Coursera Inc, 2021). As Vasquez (2022) writes, 'the sales pitch is simple: Team up with us, and you'll quickly have a whole new menu of online degree programs to offer students, with virtually no upfront financial investment'. These financial considerations are important as universities struggle with rising deficits and reduced revenue.

However, OPMs and MOOCs also change how curriculum is developed and delivered in fundamental ways which require critical attention. OPM providers in particular market themselves as experts in online pedagogy and purport to transform educational practice through their endeavors. Within the partnerships, the provision of teaching support by the OPM company means that teaching pedagogy is determined by the OPM company and the platform used, rather than by academic teachers in relation to the knowledge taught. This raises issues about coherence and pedagogical fit between what is intended to be taught and how that is communicated to and engaged with by students.

Curriculum is about 'what' is taught via education, while pedagogy typically denotes 'how' that is taught. However, both are intricately connected in defining 'what counts' as knowledge within an educational program and how that is understood and received by students (Bernstein, 1976). In the 1970s, Bernstein (1976, p. 85) defined curriculum, pedagogy, and assessment as the core 'message systems' of education through which formal education knowledge is realized, suggesting that the three message systems exist in complex relation to each other, with each message system informed and constrained by the others. Within this formulation, pedagogy is not understood as the handmaiden to curriculum, nor are curriculum and pedagogy determined in reference to the proposed outcome or what is to be assessed, but curriculum, pedagogy, and evaluation/assessment exist in relation to each other and together provide a sense of 'what counts' as knowledge within the education.

This classic argument highlights the complex and interconnected relations between curriculum and pedagogy. It suggests that new pedagogies or platforms are not neutral regarding the knowledge taught but contribute in substantive ways to what is made possible and how the knowledge of a subject is understood. This points toward problems with the separation of curricular and pedagogical responsibilities evident within unbundled online learning and the challenges that the dividing of these responsibilities raises for educational coherence.

These curriculum issues have been underexplored in discussions of unbundling. Cliff et al. (2020) have considered some of the different kinds of thinking and shifts that emerge when institutional leaders talk about curriculum purposes in relation to unbundled forms of online learning. They suggest that a different understanding of

curriculum is emerging as a result of the intersecting processes of unbundling, digitization, and marketization, one which is undermining Bernsteinian understandings of curriculum as about knowledge (discussed further in Chap. 3), as well as understandings about curriculum that are framed in social justice and praxis perspectives. Others have also suggested that practices of unbundling position education as primarily transmission-based, and undermine the importance of relational aspects of teaching and learning (McCowan, 2017). Such configurations are said to position academics as 'script writers' and give primary power to learning designers in 'taking the responsibility of aligning pedagogy, technology and organization' (White & White, 2016, p. 5). Beyond this, work considering the curriculum implications of the take-up of digital technologies and the use of new platforms and partnership arrangements has been limited.

There is also growing critical literature on the use of digital technology in higher education which has highlighted the ways its take-up is changing pedagogical practices, relationships between teachers and students, and the ways in which curriculum knowledge is disseminated (e.g. Bayne et al., 2020; Castañeda & Selwyn, 2018; Kim & Maloney, 2020; Land, 2011; Perrotta et al., 2021; Peters, 2007; Peters et al., 2012). This research raises important questions concerning the technological affordances and constraints of particular platforms and technologies, and how these affect what students and teachers are doing within educational situations, including in relation to issues of unbundling raised by new models and partnerships (McCowan, 2017). These are issues discussed further in Chap. 2.

However, this literature tends to pay less attention to how these changes impact on the content taught or how they relate to the wider context and purpose within which the education is situated. Castañeda and Selwyn (2018) have argued that 'discussions about the pedagogic underpinnings of the technologies being used in university teaching and learning are much-needed and long over-due'. However, such discussions also need to take account of curriculum issues and concerns, including the implications for what is taught and received as knowledge by students (Ashwin, 2014; Barnett & Coate, 2005; Biesta, 2014). This book aims to attend to this gap by exploring the intended and unintended changes to knowledge that accompany shifts toward unbundled forms of online learning. Rather than focus on the technological affordances of the particular platforms, it considers how those engaged in curriculum redevelopment in universities as part of early developments in MOOCs and OPMs interpreted the new contexts in which they were working and the assumptions about knowledge underpinning that work.

Technology is too often framed in instrumentalist or essentialist terms, 'either as a neutral tool that functions purely as an instrument of human intention or as an unstoppable force that drives and determines social change' (Bayne et al., 2020, p. 83). However, as Selwyn (2016) argues, 'technology' comprises both social and technical aspects, including the ways technologies are designed, the ways they are taken up within practices, and the social arrangements and organizational forms that surround their use. The use of technology in education is therefore not neutral but should be considered in terms of 'the limits and structures that it imposes as well as the opportunities that it may offer for individual action and agency' (Selwyn, 2016,

p. 9). Selwyn (2016, pp. 9–10) writes, 'even what may appear to be the most "trans-formatory" technology can end up limiting the choices and opportunities available to some individuals' and that 'it is therefore important to acknowledge that technologies do not always change things in education for the better'. As a result, he argues there is a growing need for critical social research that examines the realities of institutional technology use within educational settings and the practices and attached meanings that surround them. This book aims to engage with these questions.

1.3   Foregrounding Curriculum

This book focuses on curriculum, an area which has been much neglected in higher education research and debate. Although there is much discussion about what university teaching should look like and how it can be structured to meet the needs of a widening and diversifying student body, there is limited explicit interest in 'curriculum' as a subject of scholarship and policy debate within higher education (Hicks, 2017; Krause, 2020), and a tendency to position questions around 'what' is taught as being outside the frame of debate (Ashwin, 2014; Barnett & Coate, 2005, discussed further in Chap. 3). Research into online learning has likewise tended to focus on what the learner is doing, with far less attention to the role of the teacher (Bayne et al., 2020; Ross et al., 2019). As a result, despite important changes in how curriculum and teaching are positioned within universities, both in relation to unbun-dled online learning developments and more broadly, the substantive attention to the intended and unintended changes to curriculum and knowledge that accompany these moves has been limited.

  This book sets out to attend to this gap. In contrast to the majority of research on university teaching, the book takes 'curriculum' rather than 'pedagogy' as a starting point, focusing primarily on what substantively is being developed as knowledge within an educational program and the assumptions and contradictions that are part of that, rather than concerns about how effectively students learn. Drawing on the traditions of curriculum inquiry (Bernstein, 1976; Deng & Luke, 2008; Karseth, 2006; Yates, 2006), it puts forward an original perspective on curriculum devel-opment focused on the question of 'what counts as knowledge' (discussed further in Chap. 3). Curriculum here is understood as a knowledge practice that is both boundary enforcing, defining what counts as legitimate knowledge within a field and enrolling students within particular knowledge traditions, but also as a potential site of change that enables the building of new knowledge and the development of new trajectories toward an unknown future. It represents a site of struggle over the question of 'what counts as knowledge', which is inevitably infused with points of contestation about what matters within a disciplinary field and for the education of students.

  In part, the purpose of this book is to show what kinds of insights about univer-sities and their activities become evident when research on university teaching takes curriculum and curriculum development as a starting point, compared with a focus on

students, pedagogy, and learning. As Morgan and Lambert (2018, pp. 42–43), write, 'curriculum making takes in pedagogic perspectives, [but] it is led by the question of what to teach'. Curriculum and pedagogy are intricately entwined (c.f. Bernstein, 1976; Biesta, 2010; Yates, 2009), yet taking curriculum rather than pedagogy as a starting point allows for different insights and questions to emerge. As Yates (2009) highlights, while pedagogy is readily associated with issues about how effectively students learn or are engaged, curriculum brings attention to what, substantively, they are being drawn into as knowledge. This enables engagement with the details of particular subjects in ways which are often absent from broader studies of policy shifts.

In a context in which explicit attention to the curriculum has been sidelined in university strategies, this book makes an argument for why curriculum matters, both in understanding the effects of unbundled online learning and more broadly. Through case studies from the MOOCs period, it explores the particular ways individuals struggle with their curriculum decisions and the competing values and tensions that are part of that, taking into account what knowledge is selected and how it is put together, and the rationales and purposes behind those selections. In doing this, it takes up two particular curriculum issues which are amplified in an unbundled context: differences between disciplines and fields in the formulation of curriculum, and the extent these are recognized in university strategy; and the push for constructivist pedagogies, and its effects on curriculum construction.

In relation to the first issue, there has been a longstanding debate in the literature over the current role of disciplinary knowledge and its potential to be undermined in the face of new agendas (discussed further in Chap. 4). Many suggest that disciplinary knowledges are being replaced or sidelined by new collaborative and interdisciplinary forms of knowledge development (Gibbons et al., 1994; Maassen et al., 2018; Yates et al., 2017) and by a context in which there is an increasing tendency to privilege generic vocationally oriented agendas (Young & Muller, 2015). Questions have been raised about the extent to which disciplines continue to matter and the extent to which research in higher education should take disciplinarity and the differences between different forms and fields of knowledge as a frame of analysis as a result (Trowler et al., 2013). In the literature on disciplinarity and forms of knowledge, a binary is frequently drawn between disciplines that orient toward 'truth' or knowledge itself, such as chemistry or philosophy, and professional fields which orient toward vocational practice and the application of knowledge, such as medicine or law (Becher, 1989; Bernstein, 1996; Muller, 2009). Research drawing on these distinctions has raised questions about whether the current directions in universities are impacting more significantly on traditionally inward-facing disciplines than on professional fields (Yates et al., 2017).

Drawing on case studies from the early to mid-2010s, the book considers distinctions between disciplinary and professional forms of knowledge in the formulation of curriculum and the ways these bear out as curriculum is remade for unbundled online contexts. Are academics located in disciplines and professional fields being differently impacted by new teaching agendas? How are their teaching aims similar and different and what ways are they changed and not changed by the requirements of

unbundled online platforms? How are different disciplinary ways of constructing curriculum acknowledged at the level of university policy? The book examines different lecturers' ideas about their educational values and aims, highlighting differences in the disciplinary traditions to which they belong, and how these lead to genuine struggles to rethink curriculum design. It explores the importance of differences between disciplines and fields and the ways these are being acknowledged at the university policy level.

In relation to the second issue concerning constructivist teaching, there has been a strong focus on moving university teaching away from a so-called 'instructivist', lecture-centered mode, in which the focus is on what teachers are doing, toward a more student-centered 'constructivist' approach, focused on active learning and students' own constructions of knowledge rather than teacher-developed content (Barr & Tagg, 1995; Cullen et al., 2012). At the same time, arguments for outcomes-based education have become increasingly prominent, with calls to focus curriculum design on the desired end point, rather than the content to be taught (Suskie, 2018). John Biggs' theory of 'constructivist alignment' (Biggs, 2014; Biggs & Tang, 2011) has been particularly influential and adopted by higher education policy makers across the world (Loughlin et al., 2021). The widespread take-up of these practices, however, has been critiqued, with a number of scholars arguing that the particular approaches advocated give rise to both negative and positive effects and are not universally appropriate for all educational purposes and forms of knowledge (Barnett & Coate, 2005; Biesta, 2014, 2017; Karseth, 2008; Young & Muller, 2015); and have been translated poorly in practice (Loughlin et al., 2021; Schoepp, 2019).

Drawing on the case studies, the book explores the assumptions about 'good' teaching and curriculum development evident at the policy level of universities and in the curriculum work of academics, as well as how different reference points are put together and to what effect. In doing so, it highlights the limited and contradictory ways in which intentions to make university teaching more 'constructivist' have been brought to bear within the context of unbundled forms of delivery. Through analysis of these particular curriculum issues, the book shows why curriculum matters for higher education today, and the importance of explicitly attending to matters of curriculum in university strategy.

1.4 Case Studies of Unbundled Online Initiatives

The cases discussed in this book comprise unbundled online learning initiatives developed at two different Australian universities in the early 2010s. The universities comprised one well-established research university (referred to in this book as 'SandstoneU') and one former technical college (referred to as 'TechU'). The unbundled online learning initiatives these universities were pursuing at the time involved partnerships with OPM providers which continue to operate today. They include both initiatives to develop and offer MOOCs, and initiatives offering online subjects as part of formal degree programs. Although the form these initiatives took was

different, they all have in common the unbundled model described above, whereby the subject content was developed by lecturers within universities but delivered via external platforms, and in all but one initiative the academic or lecturers had limited involvement in the delivery of the subject. In each case, the content material was developed in full prior to being taught by academics who predominantly had little to no contact with the students taking the subjects.

The discussion of these cases focuses on the institutional policies and understandings framing the development and uptake of new online initiatives, and the development of new curriculum materials for new online subjects. It draws on interviews with university leaders at the two universities and multiple interviews with lecturers developing selected subjects over the period of development alongside analysis of policy documents and curriculum materials. The subjects discussed were selected to shed light on the implications of current directions on different forms of knowledge and include subjects located within both disciplines (ecology and classical studies) and professional fields (business studies and teacher education), as well as an interdisciplinary field of study (logic). All participants, subjects, and universities are referred to by pseudonym and further details regarding the interviews and documents drawn on in the book are provided in the Appendix.

The focus of the cases is on the intended curriculum rather than its enacted form and on how lecturers understood what was being set up in teaching. The curriculum is understood as more than just the intentions of particular lecturers, but intentions and interpretations are seen as an important part of what is put together as curriculum. As Yates (2006) argues, curriculum asks us to think about what is being *set up* to be taught and learned and the kinds of agendas taken up and not taken up in that, as well as what is actually being taught or learned. The concern of the research project was with what was being conveyed or intended to be conveyed as new courses were put together, and with the choices being made about values and emphases and directions (Yates, 2009).

The focus of the cases is also on the practices and understandings that surround the use of the new platforms, rather than the technological affordances of the platforms themselves (Selwyn, 2016). The approach was not designed to capture every element of what might be considered relevant to understanding the impacts of unbundled initiatives, but to take up some particular angles which tend to be sidelined in prominent ways of thinking about university education and where it is heading. The project was intended to engage with both the assumptions about knowledge evident and the implications of the directions of universities today in respect of teaching and curriculum.

These cases remain of significance in current strategic directions as universities continue to embrace unbundled forms of online learning. They were selected as emblematic of university priorities during the MOOCs heyday in the early half of the 2010s but continue to have wider resonance and speak to where universities are potentially heading in the current moment. They offer insights into the contemporary context of teaching and knowledge as OPM developments continue to take hold.

1.5   **Structure of the Book**

In summary, this book draws on empirical accounts of unbundled online learning in universities in the early 2010s to understand the effects of these new forms on curriculum and knowledge and the implications for current university teaching strategy as we move into the 2020s. The research arises from some conceptual questioning about knowledge work and about the directions of universities. It engages with and aims to contribute to the contemporary literature on curriculum, knowledge, and the policy and management of curriculum and teaching in universities.

The book begins with this literature and its questions (Chaps. 2–4). Chapter 2 examines the current context of university teaching in which unbundling is emerging, pointing to diminishing academic autonomy over teaching, the tendency for digital technologies to be taken up in ways that serve managerial rather than transformative agendas, and the dominance of constructivist and outcomes-based agendas in thinking about best practice teaching. It argues that within this context, questions around what is taught and the unintended effects of new approaches on curriculum have been neglected. Chapter 3 then discusses the concept of curriculum and its value for understanding the implications of unbundled online learning. It highlights the concerns a focus on curriculum draws attention to, which are too frequently missed in conversations focused solely on learning and teaching. Following this, Chap. 4 looks in more detail at the particular curriculum issues taken up in this book: differences between disciplines and fields in the formulation of curriculum and the extent these are recognized in university strategy, and the push for constructivist pedagogies and its effects on curriculum construction. It points to important distinctions drawn between disciplines and professional fields, and debates about the role disciplines and professional fields play in the formulation of curriculum today.

The middle section of the book (Chaps. 5–7) then looks in some detail at the research findings, first in relation to the policies of the two universities, and then in relation to their new subject offerings. Chapter 5 tells the story of the new unbundled initiatives introduced at these universities, the rationales behind the new initiatives, and how issues of curriculum, pedagogy, and knowledge were framed as part of this. Chapter 6 then discusses the development of particular case study subjects for the unbundled online initiatives at SandstoneU, a context where academics were able to develop their curriculum with relatively high levels of autonomy. This is followed in Chap. 7 with a discussion of the development of case study subjects for the unbundled online initiatives offered at TechU in a context where the academics involved had far less autonomy over their curriculum development.

In the final section (Chaps. 8–10), the book reflects on these findings from the two universities and the effects of the unbundled reforms on curriculum practice. Chapter 8 examines the debates about disciplinary and professional forms of knowledge in relation to the moves toward unbundled online learning, considering both differences between the case study lecturers and how such differences were recognized at the university level. Chapter 9 then considers the case studies in relation to the aims of the university leaders to encourage constructivist pedagogies, pointing

to the ways the unbundled contexts worked against this objective. Finally, Chap. 10 summarizes the main arguments of the book and the importance of attending to curriculum in university strategy.

Overall, the book aims to contribute to debates about new directions in university teaching and curriculum. This is a book that will be of interest to readers interested in reforms and challenges in universities today as it highlights the problems of new directions, as well as the genuinely difficult work involved in rethinking curriculum design. It will also be a book of interest in the context of the upsurge of recent work in the sociology of knowledge (e.g. Barrett et al., 2018; Yates et al., 2017; Young & Muller, 2015). Many of these works discuss in broad terms the rationale for 'disciplinarity' or criticize particular programs of curriculum renewal. What is newly captured in this book is a focus on the detail of curriculum development and the tensions evident within that. Through the case studies and analysis, the book captures in detail the complex and difficult work involved in university curriculum making in a way rarely seen in discussions of higher education. It also offers new insights about some of the critical problems manifest in the ongoing moves to embrace unbundled online learning today.

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Chapter 2
The Changing Context of University Teaching

2.1 Introduction

Understanding the curriculum implications of unbundled online learning requires engagement with the wider context in which unbundled initiatives are emerging. This chapter discusses the changing context of university teaching from the perspective of institutional and academic work. It considers the shifting governance of teaching, the rise of unbundled online learning in the university sector, and the dominant frames in which learning and teaching are being positioned and understood in higher education today. The chapter shows that unbundled online learning is emerging in a context in which academic autonomy over teaching is diminishing and digital technologies are principally used to serve managerial purposes rather than transformative agendas, raising particular issues for what unbundled online initiatives might offer. It also demonstrates that discussions of university teaching have been dominated by arguments for constructivist and active learning pedagogies on the one hand, and outcomes-based approaches to curriculum development on the other. It suggests that these perspectives raise some particular issues about how curriculum is framed and understood in higher education.

2.2 The Changing Context of University Teaching: Academic Autonomy and Teaching as a Policy Problem

The past half century has seen the rapid expansion of higher education systems across the world (Marginson, 2018). The numbers of students attending university over this period has increased rapidly at a rate of 1 percent a year or 20 percent every 20 years (Marginson, 2018). In over a third of nations, more than 50 percent of school leavers now enroll in higher education and roughly a third enter degree level programs (Marginson, 2018). In Australia, where the research this book is based

on took place, student numbers have more than doubled since the 1990s (Norton et al., 2018). This growth in student numbers has led to a significant diversification of the student body. Although socio-economic differences in university participation remain strong, the number of students entering university whose parents do not have tertiary qualifications has increased substantially (Norton & Cakitaki, 2016).

Within this context, the practice of university teaching has emerged as a topic of increasing concern. As higher education has massified, universities have come under strong pressure to change their teaching practices to meet the needs of a changing world and to respond to a widening and diversifying student body. Almost 20 years ago, the Australian review of higher education *Higher Education at the Crossroads* argued for 'significant transformation of approaches to curriculum and pedagogy to stimulate and stretch students and accommodate their varying needs' (Australian Department of Education, Science and Training, 2002, p. 14). A US national review of higher education, *A Test of Leadership: Charting the Future of US Higher Education*, similarly suggested that 'Too many of our colleges and universities have not embraced opportunities to be entrepreneurial, from testing new methods of teaching and content delivery to meeting the increased demand for lifelong learning' (US Department of Education, 2006, pp. 4–5) and that 'the results of scholarly research on teaching and learning are rarely translated into practice' (US Department of Education, 2006, p. 15). More recently, calls have continued to be made for Australian universities to increase their focus on teaching excellence to meet student needs (Parker et al., 2018).

Societal expectations for university teaching have become more instrumentally and vocationally driven and increasingly defined in terms of employment needs and economic concerns (Muller & Young, 2014; Wheelahan & Moodie, 2021; Yates et al., 2017). There has been a growing focus on employability, graduate attributes, and generic skills, and a push toward defining curriculum in terms of the outcomes students are expected to take away from their study (discussed further below and in Chap. 4). Teaching quality has been frequently highlighted as an issue, particularly in terms of graduate employability and return on investment. In Australia, there have been concerns about diminishing standards in response to growth, and about the skills students are taking from their degrees and their alignment with what business is looking for (e.g. Bradley et al., 2008; Norton & Cakitaki, 2016).

These concerns have emerged within widespread changes to the governance of universities which are reducing academic autonomy and decision-making over key aspects of their work. In Australia, as well as in many other parts of the world, universities have moved to expand their executive center to assume considerable control of decision-making functions, weakening long-established modes of academic self-governance and the professional autonomy of academics (Marginson & Considine, 2000; Yates et al., 2017). Authority for making key decisions has shifted from being the concern of academics and academic disciplinary departments to a university-wide process led by managerial staff. Often labeled as managerialism, these shifts have been characterized by 'a greater separation of academic work and management activity; increased control and regulation of academic work by managers; [and] a perceived shift in authority from academics to managers and

consequent weakening of the professional status of academics' (Shepherd, 2018). They have led to 'a worldwide trend of reduced self-determination of academics over key aspects of their work, [and] a loss of influence over decision making about the allocation of resources within their institutions' (Kenny, 2018, p. 366). These governance changes have only continued to intensify over time, with further consolidation of key university decision-making within centralized senior leadership teams evident in responses to the COVID-19 crisis (Watermeyer et al., 2021).

As part of these shifts, teaching has become more managed, both within central university units and via government regulation, and increasingly subject to institutionalized systematic assessments in the form of student evaluations and surveys. Many argue that the dominant mode of managing teaching in higher education favors measurement over judgment and is being guided too strongly by metrics around student satisfaction and employability (e.g. Bartram et al., 2019; Teelken, 2018). The emphasis on these metrics is said to reduce academic autonomy and change the notion of university teaching 'from professional and pedagogical principles' to 'the contractual arrangements of a producer–consumer relationship' (Blackmore, 2009, p. 867).

Moreover, despite the policy focus on teaching quality, teaching as a component of the academic role has also become more and more devalued as universities have increasingly moved toward casualized teaching appointments. In Australia, these shifts have been particularly pronounced and have emerged in response to significant cuts to university funding. Public funding has decreased substantially since the 1990s, requiring universities to teach greater numbers of students with less public funding (Norton et al., 2018). Most academic staff employed to teach are now employed on a casual or sessional basis, and on a headcount basis, casually employed academics represent a majority of the university workforce (Baré et al., 2021; Norton et al., 2018). Academic staff numbers have not risen in accordance with student numbers and the average staff to student ratio has increased substantially (Marginson, 2011). As a result, many undergraduate classes are now too large to facilitate developmental relations between lecturers and students (Marginson, 2013). These pressures are also exacerbated by the importance attached to global university rankings in Australia. The emphasis on these rankings has eroded resources for teaching by leading universities to divert funding toward research where possible. Marginson (2013) has reported that in Australia almost 30 percent of the money spent on research by universities is funded by government and student funding for domestic teaching, international student fees, investments, and philanthropy.

These shifts have meant teaching and research academics have been positioned as focused on their research, with less time to focus on teaching and the pedagogical support of their students. Educational responsibilities have been redistributed to staff with different kinds of expertise, such as educational developers and learning designers (Macfarlane, 2011). Alongside widespread casualization, new categories of teaching-only positions have emerged, with little status and limited opportunities for progression (Bennett et al., 2018; Flavell et al., 2018). These positions have been criticized for 'help[ing] to continue the privileging of research by increasing the

workload of predominantly teaching-focused staff…and creating a false dichotomy between teaching and research' (Dados et al., 2018, p. 53).

Teaching in universities has thus become a highly contested space. There are significant pressures on universities to teach greater numbers of students with limited public funding, to compete with each other, and to respond to concerns about diminishing standards and employment needs. Teaching has become more centrally managed and academic autonomy over teaching has become increasingly constrained.

2.3   Online Learning and the Rise of OPMs

This context has seen more and more universities turning to online technologies to attract and meet the needs of a changing student body. Distance education has a long history, however, the increasing ease of online education and the increased demands for postgraduate study have led to marked increases in the total proportion of students studying off campus (Norton et al., 2018). Over the past decade, debates about online learning have shifted from 'whether or not to include it to *how and when* to incorporate online learning' (Blaschke & Bedenlier, 2020). In Australia, even prior to COVID-19, most universities had some online enrollments, with 30 percent of students studying off campus or through a blended mode, although the majority of off-campus education was provided by regional universities, with around 90 percent of students at the 'Group of Eight' elite research-intensive universities on campus (Australian Department of Education, Skills and Employment, 2020). Similar percentages were also evident in other countries such as the US (Feldstein, 2018), and these figures have only increased with the outbreak of the COVID-19 pandemic.

Over the past decade, MOOCs and other online program management (OPM) providers, ventures that partner with universities to support and expand their online offerings, have emerged as a significant part of the online learning landscape. Since the onslaught of MOOCs in 2012, unbundled online learning offered via partnerships with external OPM and MOOC providers has grown significantly across the university sector. Holon IQ (2022), a global education market research company, reports that the number of new OPM partnerships has increased from just 25 new partnerships in 2010 to 201 new partnerships in 2019, 238 new partnerships in 2020 and 342 new partnerships in 2021. In the US alone, the number of OPM providers partnering with universities expanded from just three companies in 2008 to estimates in 2018 of between 27 and 40 companies (McKenzie, 2018). There are estimates that about 20 percent of four-year institutions in the US are currently working with a partner to deliver their programs online, and predictions this may grow to as much as 50 percent (McKenzie, 2018). In Australia, universities continue to partner with global MOOC platforms to offer both MOOCs and low-cost courses. There are currently 17 Australian universities in MOOCLab's 2020 ranking of universities by MOOC provision (MOOCLab, 2021). Australian-based MOOC provider Open Learning (2021)

commenced new partnerships in 2019, enabling seven Australian universities to use its platform for online learning. Other active OPMs also include Open Education Services, which has partnered with four Australian universities and expanded operations into the UK market in 2018 (OES, n.d.), and Keypath Education, whose 18 partners include eight Australian universities (Keypath, n.d.).

In the early 2010s, the media furor with which MOOCs were catapulted into the global consciousness was quickly replaced by disappointment over patchy student engagement and completion rates (Jordan, 2015). Yet despite failing to live up to the hype, MOOCs ventures continued to grow as part of the wider OPM market, including through expanding their offerings to include paid subjects and programs. According to the European MOOC Consortium (EMC), in 2016, 58 million students had enrolled in 6850 MOOCs developed by over 700 universities, and in the three months prior to April 2018, more than 200 universities announced 560 such free online courses (European MOOC Consortium, 2018). MOOCs began as experiments in online learning underpinned by principles of openness and connectedness (often referred to as c-MOOCs) but rapidly evolved into the business ventures spearheaded by digital providers Coursera and EdX introduced in Chap. 1 (Perrotta, 2018). These digital providers have continued to dominate the MOOC market. At the time of writing Coursera (2021) had 185 university partners located in 27 countries offering 3440 courses, and another high-profile MOOC provider, EdX (2021), had partnered with more than 130 universities. These prominent MOOC providers have expanded and monetized their offerings and partnerships, with Coursera expanding its offerings to include degree programs from universities in the US, the UK, and Australia in 2018, and EdX following suit the same year with an expansion of its offerings to include new wholly online degree programs from universities in both the US and Australia. This trend has been referred to 'post-MOOC' and indicates a merging of MOOC providers into the wider OPM marketplace (Thomas & Nedeva, 2018).

MOOCs have continued to receive attention in the context of the current COVID-19 crisis. There is speculation that MOOC platforms will see opportunities in the current crisis to expand their university partnerships (Carrigan, 2020), and evidence that some academics continue to see increasing use of MOOCs as a potential positive which might emerge from the pandemic (Eringfeld, 2021). The Australian Trade and Investment Commission (Austrade) announced plans to partner with MOOC provider FutureLearn at the commencement of the COVID-19 pandemic (Australian Trade and Investment Commission, 2020; Tehan, 2020), and in February 2021 expanded on the initial 20 courses to 50 (Australian Trade and Investment Commission, 2021). Macquarie Group has said it will pay student fees for 'skills-based' courses offered via MOOC platform edX (2021). And micro-credentialling (which includes professional certificates offered by MOOC providers as well as other low-cost short courses) has also received significant attention and been positioned as the answer for enabling affordable upskilling during economic downturns (Futures et al., 2020; Wheelahan & Moodie, 2021).

MOOCs and OPM companies form part of an emerging ecosystem of commercial providers working within higher education systems. These commercial providers are becoming increasingly embedded within the global higher education industry

as universities look to new sources of income and a new body of scholarship has emerged, critiquing their effects on the global higher education system (e.g. Komljenovic, 2020, 2021; Perrotta et al., 2021; Robertson & Komljenovic, 2016; Williamson, 2019, 2021). This work has drawn attention to the changing power relations emerging through these new partnerships; their tendency to reinforce rather than disrupt existing inequalities; and the effects of platforms on educational practices, particularly in relation to the use of algorithms, automated processes, and datafication (see e.g. Decuypere et al., 2021; Komljenovic, 2021; Perrotta et al., 2021; Ross et al., 2019; Williamson, 2019).

These shifts are affecting institutions in different ways. As Marginson (2011, p. 376) writes, 'the field of higher education is uneven, hierarchical, shifting and contested'. Research on partnerships between universities and OPMs and MOOCs in the UK and South Africa has suggested they reinforce inequalities and the stratification of higher education systems (see Ivancheva et al., 2020; Perrotta, 2018; Swartz et al., 2019; Swinnerton et al., 2020). Ivancheva et al. (2020), for example, suggest that unbundling is more likely to cement the standing of already elite institutions that can afford to invest in these opportunities for marketing and promotional purposes. They propose that universities of lower standing are likely to have less opportunities to engage in unbundled OPM partnerships. Others have also suggested while these elite universities may experiment with OPM partnerships, unbundling practices are more likely to be taken up on a significant scale within institutions of lower standing (see McCowan, 2017).

Practices of unbundling also raise a range of pedagogical concerns, including a framing of learning as about the transmission of information, and an undermining of the importance of relational aspects of teaching and learning (McCowan, 2017). The MOOCs pioneered by Coursera, EdX, and Udacity, for example, tend to comprise a common pedagogical approach based on short video lectures, automated approaches to assessment, and little to no direct interaction between lecturers and students. Bates (2019) has argued this approach is underpinned by a behaviorist view of learning which emphasizes transmission of content, the control of the teacher in what and how students learn and an emphasis on predefined and easily measurable outcomes. Critiques of these MOOCs have drawn attention to their 'learning as information' model (Shumar & Wright, 2016, p. 3), including in terms of differences between these mainstream MOOCs and other connectivist-inspired forms (Knox, 2015) and their tendency to reify and commodify knowledge (Bayne et al., 2020; Cliff et al., 2020; Rhoads et al., 2013).

Beyond MOOCs, Perrotta et al. (2021) suggest that platforms such as those offered by OPMs have their own pedagogical logic, which shapes what is possible in relation to participation. They argue that within platforms 'pedagogic decisions become inseparable from technical and administrative decisions; learning becomes interwoven with the development of a platform literacy (how to navigate the platform and its API [application program interface]-mediated integrations); and teaching becomes partly automated and distributed' (p. 99). As Perrotta et al. (2021) show, platform constraints and affordances require teachers to enact new practices and

'introduce elements of automation in the pedagogic environment'. Aspects of educational practice are off-loaded onto the platform itself, fragmenting pedagogy, and requiring teachers to shift their efforts from actual teaching to the management of student engagement. As Bayne et al. (2020, p. 70) write, the technological infrastructure and software involved in offering courses online is vastly complex and acts to significantly transform and reshape the education offered.

These critiques connect with wider concerns about the ways digital technologies are used in higher education, dating back to David Noble's (2001) classic critique of 'digital diploma mills'. Despite the significant engagement with constructivist theories of knowledge in the digital education literature and the influence of such theories on the design of online programs (Blaschke & Bedenlier, 2020), many suggest that the use of digital technology in higher education tends to focus on delivery of course content, learning outcomes, and data, rather than student interactions and co-constructions (Selwyn, 2011; Shumar & Wright, 2016). There is a tendency for education to be positioned as an individualized, transactional process, rather than a collective and relational activity (Bayne et al., 2020; Castañeda & Selwyn, 2018).

Additional critiques draw attention to how the academic teaching role is positioned within these constructions (e.g. Gehrke & Kezar, 2015; Macfarlane, 2011; Neely & Tucker, 2010). Neely and Tucker (2010), for example, have suggested that online learning is increasingly leading to an unbundling of the academic role in teaching, as delivery activities are increasingly separated from the instructional role, and educational responsibilities are redistributed to staff with different kinds of expertise (such as learning designers, technologists, and academic advisers). Others have also pointed to issues with the positioning of teachers as 'facilitators' within digital educational discourse, and the tendency for those advocating for more open forms of education to reject the university's pedagogical role and the place of the teacher (Bayne et al., 2020; Knox, 2013). In relation to MOOCs in particular, concerns have been raised that they contribute to automation and deskilling in academic labor (Peters, 2016), and give primary power to learning designers in 'taking the responsibility of aligning pedagogy, technology and organization' (White & White, 2016, p. 5). OPM contracts with universities tend to favor the OPM provider and give them greater control over online programs (Busta, 2019; Komljenovic, 2021), and educators and teachers tend not to be consulted in the design of new platforms (Perrotta et al., 2021), further exacerbating these issues. Others have highlighted the ways teacher professionalism and agency have been undermined in the championing of particular developments, such as MOOCs, as well as in broader trends toward automation and platformization (e.g. Bayne et al., 2020).

MOOCs and OPMs have thus emerged in a context in which digital technologies are not typically used in universities in transformative ways (although this does occur), but to serve managerial agendas. Digital technologies used in this way are also driving particular pedagogies, potentially restricting possibilities for open and relational engagement.

2.4 'Best Practice' in University Teaching: The Push for Constructivist Pedagogies and Alignment

Alongside these developments in online learning, interest in best practice teaching has intensified and books and papers on how to teach in higher education have proliferated (e.g. Barr & Tagg, 1995; Biggs & Tang, 2011; Chickering & Gamson, 1987; Ramsden, 2003). In an overview of 'Innovation in Teaching and Curriculum Design' for the *International Encyclopedia of Education*, Dearn (2010, p. 448) suggests that 'recent years have seen a widespread change, both in what is taught in universities and colleges and how teaching takes place'. Dearn (2010, p. 48) argues that this change has been in response to two main drivers: 'First, a growing realization that traditional teaching methods are relatively ineffective for many students, and second, the changing demands being made on higher education resulting from the changing nature of work and knowledge, the changing nature of the student population, and the emergence of new information and communication technologies'.

Many of these works emphasize the importance of creating learning experiences that engage students, promote active learning, and focus on students' own constructions of knowledge (Barr & Tagg, 1995; Biggs & Tang, 2011; Cullen et al., 2012; Porcaro, 2011; Prosser, 2013; Weimer, 2013). Dearn (2010, p. 450) writes, 'perhaps the most significant idea that has influenced innovation in teaching and curriculum design has emerged from the realization that teaching as an activity does not always lead to learning'. This 'realization' has led to a shift framed as a move from 'teaching' to 'learning' which has been characterized by an emphasis on student activity and 'active learning' (Chickering & Gamson, 1987). In 1995, Robert Barr and John Tagg wrote an influential publication titled *From Teaching to Learning—A New Paradigm for Undergraduate Education.* In it, they describe the shift from what they call an instruction paradigm, where knowledge is seen as being transferred from teachers to students and the focus is on covering content, to a learning paradigm, where the role of the teacher is to facilitate students in constructing their own knowledge and the focus is on student learning and understanding. Similar arguments are also put forward by Biggs and Tang (2011) and their emphasis is on 'active' rather than 'passive' learning activities as part of their model of 'constructive alignment'. This work draws on a broad understanding of constructivism, whereby 'teaching is not a matter of transmitting but of engaging students in active learning, building their knowledge in terms of what they already understand' (Biggs & Tang, 2011, p. 22). Students are acknowledged to come to university not as blank slates but with preformed ideas about the world which their education needs to build upon or challenge (Biggs & Tang, 2011). Such arguments are used to draw a distinction between 'instructivist' pedagogies, understood as premised on direct instruction or didactic methods and focused on the transmission of content, and constructivist pedagogies, which encourage active engagements (see Porcaro, 2011).

These ideas have also been influential in discussions about digital education and online learning, where there is a significant emphasis on learning as a social practice (see e.g. Bayne et al., 2020; Chen et al., 2011; Czerniewicz, 2010). Despite

the concerns raised above about how digital technologies are predominantly used in university teaching, constructivist ideas have been highly influential in the online learning space since the 1980s (Blaschke & Bedenlier, 2020; Selwyn, 2016). Many see digital technologies and online learning environments as aligned with constructivist pedagogies in their ability to situate learning within collaborative and supportive social contexts (e.g. Luke, 2003), and emphasize the ways peer-to-peer collaboration and interaction are supported and enabled by digital environments. The Open University in the UK in particular has embraced a shift from a transmission model of teaching to an emphasis on teaching 'how one comes to know' (Brown, 2002), and advice on how to teach online predominantly emphasizes the need to reduce content and avoid overloading students (e.g. Bates, 2019, 2020). Many argue that learning content is becoming less important in the age of the internet than the development of skills, including knowledge management (e.g. Bates, 2019), and there is an emphasis on focusing on *how* rather than *what is learned* (Brown & Adler, 2008, p. 18). They are critical of the content transmission emphasis of the mainstream MOOCs discussed above, and see this as not in touch with best practice thinking around how students learn (Bates, 2019).

This emphasis on 'active learning' and 'doing' in the literature on best practice university teaching is frequently tied to a concern with predefined learning outcomes and 'aligning' learning activities to build toward those predefined outcomes. Barr and Tagg (1995, p. 10) write that under a 'learning paradigm', the choice of 'means' (activities, lectures, etc.) is not fixed but the 'ends' (outcomes) are, 'allowing the means to vary in its constant search for the most effective and efficient paths to student learning'. Biggs and Tang (2011) likewise emphasize the importance of 'constructive alignment', which comprises alignment of (1) learning outcomes; (2) activities designed to develop those outcomes and (3) the assessment of the learning. This, Biggs and Tang note, is a form of outcomes-based teaching and learning. The intention is about making the intended outcomes as explicit as possible, while 'always allowing for unintended but desirable outcomes' (2011, p. 11). They emphasize the importance of using outcomes to encourage a 'deep' rather than 'surface' approach to learning and to 'activate' learning activities that require high cognitive levels (such as reflecting, theorizing, and applying), rather than only those which require lower cognitive levels (such as memorizing and recalling).

These arguments advocate for forms of teaching which can provide many benefits for students. However, there is a tendency within them to downplay or set aside the role of formal knowledge within education. Curriculum, in terms of what is taught, is typically taken for granted, and seen as unproblematically able to be transferred into a new form. The transformative effect of incorporating 'active learning' approaches or reconfiguring courses around learning outcomes is seen as about *clarifying* or *refining* what is truly important within a given course, rather than potentially changing that. As Muller (2014) has argued, within the scholarship of teaching and learning literature in higher education, the problem is cast as one which is about how to teach, rather than what we are teaching or the relationship between how and what is taught.

Constructive alignment theory (Biggs, 2014; Biggs & Tang, 2011) has been widely adopted as a curriculum design tool in higher education across the world (see Bovill & Woolmer, 2019; Loughlin et al., 2021). However, concerns have been raised about the uncritical adoption of the ideas of constructivism and alignment in university policies. Scholars have argued that the theory has been translated poorly in practice (Loughlin et al., 2021; Schoepp, 2019), and that the particular approaches advocated give rise to both negative as well as positive effects and are not universally appropriate for all educational purposes and forms of knowledge (issues discussed further in Chap. 4).

The emphasis on outcomes has also meant curriculum is predominantly positioned as something settled and predetermined prior to teaching. Defining curriculum in terms of explicit educational objectives promotes a prescriptive approach to curriculum and a sense of what Barnett and Coate term 'curriculum-as-product' (Barnett & Coate, 2005; Coate, 2009). According to Goodson (2008, p. 125), this framing of curriculum 'develops from a belief we can dispassionately define the main ingredients of the course of study, and then proceed to teach the various segments and sequences in systematic turn'. Goodson suggests that a prescriptive, outcomes-oriented approach to curriculum presents core curriculum knowledge as settled and unproblematic, obscuring the complex and ongoing contestations that make up curriculum development (an issue discussed further in Chap. 3). The emphasis on outcomes has also been criticized for limiting definitions of learning and achievement in ways that impede the development of different forms of knowledge (e.g. Biesta, 2009; Coate, 2009; Karseth, 2008; Muller & Young, 2014).

Dominant perspectives on what good teaching looks like in universities thus raise some particular concerns about how curriculum is constructed. Their focus on the 'how' of teaching has led to a neglect of important questions about what is taught and the effects of new approaches upon this.

2.5   Conclusion

Unbundled online initiatives are emerging in a context in which academic autonomy over teaching is diminishing and digital technologies have been frequently co-opted to serve managerial agendas, creating constraints rather than transformative possibilities. Teaching via online platforms restricts what is possible and acts to significantly transform and reshape the education offered, and this continues to be the case for unbundled forms of online learning. Discussions of university teaching have also been dominated by arguments for constructivist and active learning pedagogies on the one hand, and outcomes-based approaches to curriculum development on the other. The dominance of these perspectives raises some issues for curriculum in higher education. In particular, it has meant the 'what' of curriculum and the unintended effects of new approaches to curriculum and pedagogy have largely gone unexamined. These issues, and what centering curriculum can illuminate, are further discussed in Chap. 3.

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Chapter 3
Understanding Curriculum in Higher Education

3.1 Introduction

Curriculum is a neglected area of attention in both higher education scholarship and policy. Despite a lot of concern and debate about university teaching practice, the curriculum effects of new teaching approaches tend to go unexamined. Although the concept of curriculum is complex and contested, foregrounding curriculum draws attention to the question of 'what' is taught in important ways (Deng, 2018; Yates, 2006), as well as the complex relations between curriculum and pedagogy (Bernstein, 1976). This chapter discusses the concept of curriculum and its importance for understanding the implications of unbundled online learning. It puts forward an interpretation of curriculum development as a contested site of struggle over the question of 'what counts as knowledge' and how knowledge is defined within a particular program of study. The chapter discusses the concepts and theories derived from the field of curriculum inquiry which informed this understanding, and how these were taken up to understand the case studies of unbundled online learning discussed later in the book. It highlights the concerns a focus on curriculum draws attention to, which are neglected in debates centered on learning and teaching.

3.2 Engaging with Curriculum in Higher Education

Although questions around what a university education should emphasize have been widely debated, there has been very little work that has taken seriously the changing dynamics of curriculum making within universities. Curriculum is a term which tends not to be in favor within university policy documents where phrases such as 'learning and teaching' dominate. In the UK and Australian context, in particular, explicit interest in 'curriculum' as a subject of scholarship and policy debate within the higher education field has been limited. In their book *Engaging the Curriculum in Higher Education*, Barnett and Coate (2005, p. 1) write that in relation to higher

education 'there is very little talk about the curriculum'. Considering the context of increasing policy concern with teaching discussed in the previous chapter, they note:

> Despite the national seminars, the books, the new journals, the funded initiatives, the appointment of pro-vice-chancellors (for 'learning and teaching' or for 'academic development'), the new interest in the 'scholarship of teaching' and the establishment in universities of 'educational development centres' or centres for 'learning and teaching' or 'academic practice', the idea of curriculum pretty well goes entirely unremarked'. (Barnett & Coate, 2005, p. 17)

In the book *Researching Higher Education* (Tight, 2012, p. 66) likewise comments that it is 'uncommon to find higher education researchers (or practitioners) directly discussing the curriculum'. In Australia more recently, concerns have been raised about the declining reference to the term curriculum in government policy, and its use to simply denote course content (Hicks, 2017; Krause, 2020).

This neglect of curriculum has had implications for how its knowledge base and implications are understood and framed. In an introduction to a special issue on 'Knowledge, curriculum and student understanding in higher education', Ashwin (2014, p. 123) writes:

> When policy makers discuss higher education and ways of defining the quality of an undergraduate degree, there is remarkably little discussion of knowledge […] research into students' experiences of studying in higher education has been dominated by studies that focus on teaching and learning, the majority of which tend to separate teaching from learning […] This has meant that research has tended not to examine the relations between knowledge and curriculum in higher education.

While there is a substantial literature on the higher education curriculum in the US in relation to curriculum planning, structure, and design, and much debate about what university teaching should look like (as discussed in Chap. 2), there is limited engagement with questions about the relations between knowledge and curriculum and the ways in which curriculum is being constructed.

An emerging body of literature has begun to explore the curriculum question in higher education. A number of scholars engaging in this space have attempted to grapple with the question of what it means to research curriculum in higher education and how the higher education curriculum should be understood (e.g. Barnett & Coate, 2005; Coate, 2009; Karseth & Solbrekke, 2016; Yates et al., 2017; Young & Muller, 2015). This work (discussed further in Chap. 4) has drawn attention to the limited ways in which curriculum is framed in higher education and the importance of centering questions of knowledge in how curriculum is defined.

However, there is limited agreement on how curriculum should be understood as an object of inquiry. As Aoki (1980/2005, p. 94) writes, 'The term curriculum is many things to many people'. Outside scholarly debate, 'curriculum' is frequently taken to simply refer to a syllabus or subject outline. However, decades of research in curriculum inquiry globally (focused primarily on the school curriculum) have struggled with the question of what curriculum means and how it should be understood conceptually. Definitions of curriculum are contentious and closely associated with different conceptual, philosophical, and ideological understandings of educational purpose (Connelly & Xu, 2010).

Understandings of the curriculum take a range of forms. Cliff et al. (2020, p. 3) identify four orientations to the curriculum. In the first, curriculum as content transmission, curriculum is understood as reproductive and uncontested, with the role of lectures and students being to transmit and acquire knowledge respectively. In the second, curriculum as product (which Cliff et al., 2020 identify as associated with unbundling in higher education), the various components of the curriculum such as content delivery, academic support, and assessment are packaged to meet the needs of students, lecturers, and other key actors. In the third and fourth orientations, curriculum as process and praxis, curriculum is understood as mutable, emergent, and aimed at critical engagement and transformation. Barnett and Coate (2005, pp. 28–38) have also distinguished between five different approaches to framing curriculum. These include 'curriculum as outcome', where the focus is on specifying course objectives, benchmarking, and transparency; 'curriculum as special', evident where curriculum policy directives are indirect and academic authority over curriculum is emphasized; 'curriculum as culture', which understands curriculum as a practice of academic knowledge cultures; 'curriculum as reproduction', which focuses on the 'hidden curriculum' and the implicit rules of the game students are required to negotiate; 'curriculum as transformation', which focuses on its potential to empower and transform student lives; and 'curriculum as consumption' through which students are positioned as consumers of education. These debates are useful for understanding the value and limitations of different constructions but can make it difficult to precisely define what the curriculum is and what curriculum inquiry is for.

This is complicated by different uses of the word curriculum, which is sometimes understood as synonymous with pedagogy and sometimes as distinct from it (Connelly & Xu, 2010). Conventionally, curriculum is predominantly understood as 'what' is taught, while pedagogy denotes 'how' that is taught. Yet as Barnett and Coate (2005, p. 5) suggest, one issue challenging discussions of curriculum is the question of 'where do issues of curriculum end and issues of pedagogy begin?'. Distinctions are frequently drawn between the intended and enacted curriculum or, in Barnett and Coate's (2005) terms, between the 'curriculum-as-designed' and the 'curriculum-in-action' as it occurs within classrooms. For many scholars, curriculum and pedagogy are seen as inseparable, with curriculum understood as 'nothing except as realized and its realization is dependent upon not just its reception among the students for whom it is intended but also their actual engagement with it' (Barnett & Coate, 2005, p. 5). This perspective positions the intended curriculum as irrelevant and focuses instead on what students themselves perceive as important and how they engage with an educational encounter.

However, as argued in Chap. 1, considering curriculum as distinct from but related to pedagogy is important for ensuring questions about what students are drawn into as knowledge are not neglected in favor of questions about how effectively students learn and how they are engaged. Traditionally, the question of what counts as knowledge has been considered central to curriculum making and is part of what makes study engaging with curriculum distinct, particularly given the challenge of separating

curriculum issues from more general educational concerns (Connelly & Xu, 2010). Green (2010, p. 45, emphasis in original) writes:

> The question of knowledge is central to educational theory and practice alike. Classically, what is widely regarded as the fundamental curriculum question is *What knowledge is of most worth?* – usually attributed to Herbert Spencer, writing in the latter part of the 19th century. That question is in turn commonly and characteristically rendered, somewhat transformed, as *What should the schools [and universities] teach?*

The question of 'what should count as knowledge' is also identified as a key curriculum question by Deng and Luke (2008) in their chapter for *The SAGE Handbook of Curriculum and Instruction.* Deng and Luke (2008, p. 10) comment that the responses given depend on individual theoretical orientations and perspectives as well as ideological and cultural investments. They suggest:

> the task of curriculum theory is to problematise and foreground different claims on the formations of subject matter; to understand their epistemological bases and their teleological assumptions about the purpose of schooling and education; to identify whose and which versions of knowledge, practice, and experience are entailed; and to understand the educational and intellectual, social and cultural bases and consequences of these particular selections.

Although there is as a result considerable debate about the extent to which such questions continue to matter and the ways in which they should be framed (see Deng, 2018; Pinar, 2012); focusing curriculum on the question of 'what counts as knowledge' illuminates important considerations around what is valued within education. As Green (2018) argues, such questions are about 'what' is taught but also point to issues of purpose. In other words, why knowledge has been selected and to what ends.

Following this work, this book takes a particular approach to grappling with curriculum questions, focused on the question of what counts as knowledge and how particular agendas are put together. Curriculum is understood in relation to this as a 'site of struggle' (Ashwin, 2014) and a 'socio-political and cultural process of decision-making' (Karseth, 2006) which is inevitably infused with points of contestation about what matters within a disciplinary field and for the education of students. It defines 'what counts as knowledge' in complex ways, including via relations with pedagogical form and assessment design (Bernstein, 1976). Curriculum here is understood as a knowledge practice that is both boundary enforcing, defining what counts as legitimate knowledge within a field and enrolling students within particular knowledge traditions (Barnett & Coate, 2005; Becher, 1989; Nespor, 1994), but also as a potential site of change that enables the building of new knowledge and the development of new trajectories toward an unknown future (Bernstein, 1976; Yates, 2012). In other words, curriculum is a practice that is both about the reinforcing of current ways of thinking but also about the potential for change.

The focus of the book is primarily on the intended curriculum rather than its enacted form and on how university leaders and lecturers understand what is being set up in teaching. The curriculum is more than just the intentions of particular lecturers, but intentions and interpretations are an important part of what is put

together as curriculum. As Yates (2006) argues, curriculum asks us to think about what is being *set up* to be taught and learned and the kinds of agendas taken up and not taken up in that, as well as what is actually being taught or learned. What is being conveyed or intended to be conveyed as new courses are put together and the choices being made about values and emphases and directions are important (Yates, 2009). This focus means some important considerations concerning students' own knowledge constructions and experiences of curriculum are not considered. But as discussed in Chap. 1, this was a deliberate decision to foreground considerations which have been neglected in discussions of university teaching.

The remainder of this chapter explores the thinking about curriculum informing this book. It considers the politics of curriculum and the centrality of the knowledge question, the relations between curriculum and pedagogy, the future possibilities enabled by different curriculum forms, and the material constraints of curriculum as a practice. These issues (particularly in relation to the knowledge question) are discussed here in general terms before being taken up in relation to more specific issues (disciplinarity and constructivist teaching) in Chap. 4.

3.3   The Politics of Curriculum and the Centrality of the Knowledge Question

Curriculum has long been defined as the 'what' of education and as concerned with the question of 'what counts' as knowledge. Bernstein (1976) classically defined curriculum as capturing 'what counts as valid knowledge', distinguishing this from pedagogy and assessment which he saw as concerned with the transmission and realization of that knowledge. Curriculum sets out what is important for students, both explicitly in terms of the content to be taught, and implicitly in terms of the ways of knowing and being that are valued (Yates & Grumet, 2011). Curriculum, as Yates (2006) suggests, is about what substantively students are being drawn into as knowledge through education. It incorporates pedagogic perspectives about how students learn, but 'it is led by the question of what to teach' (Morgan & Lambert, 2018, p. 43).

Within universities, curriculum acts to define what counts as legitimate knowledge within particular fields and areas of study (Barnett & Coate, 2005; Becher, 1989; Nerland & Jensen, 2012; Nespor, 1994). Curriculum enrolls and connects students with disciplinary and professional fields, and is part of the way in which disciplinary and professional identities are developed in students (Nespor, 1994). As Becher's (1989) work on academic cultures (discussed further in Chap. 4) illustrates, curriculum constitutes part of the way disciplines and professional fields mark their boundaries and define how legitimate knowledge within those fields is understood.

Curriculum, however, is never simply about a settled agreed body of knowledge but is inevitably selective and political. It brings up questions about the content of education and how and by whom that is decided. Within the curriculum literature,

there has been significant attention to the politics of curriculum selection and the ways in which curriculum comes to represent the political views of the dominant class. Since the publication of the classic text *Knowledge and Control: New Directions for the Sociology of Education* (Young, 1971), a significant body of curriculum research has been interested in questions about whose interests are served by different ways of constructing curriculum and assessment. Michael Apple's (1990) work in particular has drawn attention to the nature of curriculum as a 'selective tradition', which in both theory and practice 'entails the normative selection, classification, and framing of knowledge from the archive of human knowledge' (Deng & Luke, 2008, p. 3). Within this line of thinking, the knowledge of the curriculum is understood as not given, but a construction, and one which represents the perspectives of the powerful rather than something which is universally true. It is inherently ideological and impossible to divorce from issues of class, race, gender, and power relations (see Deng, 2018). These debates have played out in universities in relation to calls to decolonize the curriculum and have been seen in recent student movements such as 'Why is my curriculum white?' (see Rudolph et al., 2018).

Related arguments have also drawn attention to the nature of the higher education curriculum as a site of struggle rather than a given. Such work highlights the ways in which curriculum in higher education is not simply a singular construction, but one which is infused with multiple and potentially competing understandings and purposes about what matters for education and for knowledge. Karseth (2006, p. 256), for example, has defined curriculum as a 'social construction where the process of decision-making is seen as a socio-political and cultural process which takes up conflicting arguments'. She draws here on Ian Westbury's (2003, p. 194) argument that 'the term "curriculum" must always be seen as symbolizing a loosely-coupled system of ideologies, symbols, discourses, organizational forms, mandates, and subject and classroom practices'. In a similar vein, Ashwin (2014) has also argued that the recontextualization of research knowledge into curriculum knowledge encompasses 'sites of struggle in which different voices seek to impose particular versions of legitimate knowledge, curriculum and student understanding' (Ashwin, 2014, p. 124; see also Slaughter, 2002). Barnett and Coate (2005, p. 51) have likewise defined curriculum as 'dynamic and in flux [and […] the site of contested interpretations'. Krause (2020, p. 2) has criticized rationalist understandings of curriculum as failing to 'represent adequately the curriculum as a site of contestation, conflict and debate'. Others have similarly highlighted that the ways we think about what matters in curriculum necessarily take up a range of different concerns, including issues related to cognition, to identity formation, and to ethics and social values (Clegg, 2011; Gewitz & Cribb, 2009; Yates et al., 2017; Zipin et al., 2015).

These perspectives highlight the importance of understanding curriculum texts and decisions about what content is selected and how that is put together as not pregiven but temporary settlements. Such settlements inevitably take up some things and neglect others, defining what is important within a course and creating different kinds of effects or conditions of possibility for what is then taken up in the teaching or by the students. Any curriculum is therefore inevitably infused with multiple and

competing points of contestation about what matters within the disciplinary field and for the education of students in a broader sense.

Understanding curriculum in higher education means attending to these differences and contestations. This highlights the need to attend to not just what is said to count as knowledge, but also what is evident in the underlying purposes and values of those constructing curriculum. In the design of the research discussed in this book, such arguments informed the study's interest in the different and competing concepts of knowledge at work within university leaders' and lecturers' thinking and practices. For this book, the focus on the selective nature of curriculum was not about the politics of knowledge and whose voice is being heard (although these issues are undoubtably important), but about the diverse pressures and assumptions underpinning curriculum decisions and the ways in which these are put together. The research considered how curriculum was understood by both those driving new unbundled online initiatives, and those developing new subjects for those initiatives, including in terms of its relationship to the knowledge field, and what effects, challenges, and conditions of possibility that created.

These perspectives are important for understanding the implications of unbundled online learning reforms. Although there are exceptions (e.g. Bayne et al., 2020; Cliff et al., 2020), most of the debate about MOOCs and other unbundled online learning models has focused on issues of student learning and engagement. While these issues matter, focusing solely on these concerns means that the politics of curriculum and the effects of new approaches on knowledge are neglected. Curriculum, as Yates (2006) has argued, puts the politics of education on the table. These political issues do not go away if curriculum conversations are not centered, but if the focus is only on student learning and engagement, they can be left hidden.

3.4 The Relations Between Curriculum and Pedagogy

A focus on curriculum thus draws attention to issues not captured by the learning and teaching agenda, where how learning occurs is the primary focus (Yates, 2009). However, this does not mean that curriculum can be understood as disconnected from pedagogy. Bernstein's work in particular has explored the complexity of the connections between curriculum and pedagogy and their relationship to how knowledge is defined through education. As introduced in Chap. 1, Bernstein (1976, p. 85) categorized curriculum as a core 'message system' of education through which formal education knowledge is realized, alongside the other two message systems of pedagogy and evaluation/assessment. He proposed that formal educational knowledge is realized through those message systems and should be understood as 'the underlying principles which shape curriculum, pedagogy and evaluation'. For Bernstein (1976, p. 85), curriculum 'defines what counts as valid knowledge', pedagogy 'defines what counts as valid transmission of knowledge' and evaluation 'defines what counts as valid realization of knowledge'. Each of these three message systems is understood

to exist in complex relation to each other, with each message system informed and constrained by the others.

To illustrate these relationships, Bernstein (1976) categorized curriculum as being developed via two forms which he termed collection code and integrated code. A curriculum defined by a collection code was categorized by clear subject or disciplinary boundaries and forms. Here, what counts as knowledge in each subject is derived from the authority given to the discipline and the knowledge legitimized within that. Comparatively, within an integrated code, curriculum is defined by a topic or problem, with authority given and legitimate knowledge defined by the integrating idea. The two codes arise from different concepts of what counts as having knowledge as well as different concepts about how the knowledge is to be acquired and legitimately realized and built over time. To explore the underlying structure of the two forms of curriculum, Bernstein proposed the concepts of classification, which refers to 'the degree of boundary maintenance between contents' (p. 88), and framing, which refers to 'the degree of control the teacher and pupil possess over the selection, organisation, pacing and timing of the knowledge transmitted' (p. 89), and the strength of the boundary between non-school knowledge and educational knowledge. These concepts refer to the rules organizing the content and the organization of what is relayed, rather than what is actually enacted by a teacher within the moment of teaching.

Bernstein proposed that the underlying structure of the collection curriculum was based on strong classification, while an integrated curriculum was based on weak classification. He argued that curriculum with strong classification and framing (as in a collection code) is based on a visible pedagogy (evident for example in didactic methods, or where the rules are made explicit to students), while curriculum based on weak classification and framing (as in an integrated code) is based on an invisible pedagogy (evident for example in action methods). Under this framework, pedagogy can be considered visible where the criteria and manner of transmission are explicit, and invisible where the criteria are diffuse and the manner of transmission implicit. Visible pedagogies align with standardization, mass teaching, and cross-institutional comparison, while invisible pedagogies have multiple diffuse evaluation procedures that are not easily subject to precise measurement and are reliant on small class sizes and an educational architecture which together enable individual assistance to be provided to students. These arguments draw attention to the effects of different pedagogies on what is educationally possible, and the relations between curriculum and pedagogy as part of this.

Biesta (2010) has put forward a similar argument in his critiques of the learnification of education (discussed further in Chap. 4). This work emphasizes that 'the means [i.e. pedagogy] we use in education are not neutral with regard to the ends we wish to achieve [but] contribute qualitatively to the very character … of the goals which they produce' (p. 36). As Biesta argues, we need to always consider both whether such ends are desirable and 'what students will learn from our use of particular means or strategies' (2010, p. 49).

These arguments highlight the complex and interconnected relations between curriculum and pedagogy. They suggest that new pedagogies are not neutral with

regard to the knowledge taught but contribute in substantive ways to what is made possible and how the knowledge of a subject is understood. This has important resonance for understanding the implications of unbundled online initiatives, where curricular and pedagogical responsibilities are separated. It points to potential problems with dividing these responsibilities on educational coherence; these challenges are explored further in the case studies in the latter half of this book.

3.5 Curriculum as About Future Possibility

This understanding of curriculum emphasizes its role not only in capturing 'what counts' as knowledge in the present time, but also in setting up future possibilities. Bernstein's (1976) above categorization and analysis of different curriculum forms suggests that where integrated codes may tie students to the dominant idea, collection codes are problematic in some respects but potentially allow for a stronger foundation in building toward new directions over a longer period of study. Yates (2012, pp. 269–270) writes in relation to this:

> The caution his [Bernstein's] analysis raises is that taking a particular approach at one stage can produce problematic or perverse effects at another. Integration codes do open up new ways of engaging and using the knowledge of students – but they have the potential danger of tying students to the dominating idea and requiring a more uniform ideology by their teachers in order to work, rather than giving students the tools to go further. Collection codes conversely pose big problems for those concerned about social inequalities, for learners lacking the right cultural capital and dispositions, and they have the potential to produce some rigidity. Nevertheless, Bernstein argued, this kind of strong disciplinary boundary work is also a source of the later boundary breaking and creative work that happens with those who make it through to the PhD.

Bernstein argues that a collection code curriculum 'involves a hierarchy whereby the ultimate mystery of the subject is revealed very late in educational life' (1976, p. 97). This mystery, meaning 'the potential for creating new realities' (i.e. how the research field works) is revealed only 'to a select few who have shown the signs of successful socialisation' (1976, p. 97). Bernstein wrote that only these few then experience 'the notion that knowledge is permeable, that its orderings are provisional, that the dialectic of knowledge is closure and openness', while for the many socialization of knowledge is socialization into order, and can be alienating and potentially meaningless (1976, p. 97). Yates (2012, p. 269) notes that Bernstein 'was one of the few sociological theorists who took seriously the dynamics of what is produced by different forms of curriculum, both in terms of identity building and in terms of building powerful and new knowledges', beyond the attention to the social messages or disciplining the curriculum delivers. His work shows the ways in which curriculum constitutes a site of knowledge construction, with different configurations enabling different possible futures.

For unbundled online initiatives, this work raises questions for the kind of futures enabled for students by particular constructions, particularly for MOOCs which are

taken outside a wider program of study. Unbundling can be understood here to have effects that are not just about the immediate engagement of students but are about what they are able to take away from curriculum and the kinds of futures that are enabled, both for students and for knowledge traditions.

3.6 Curriculum as a Material Practice

Finally, curriculum must also be understood as a material practice, subject to and productive of particular constraints and conditions and situated within institutional contexts and policy agendas. Curriculum, as Yates (2006) writes, brings together questions about what knowledge is important, about educational institutions and their pedagogical and organizational practices, about individual subjectivity, and about the individual and social outcomes of education practices. Studies of curriculum are about intellectual questions, but also 'practical, political and pragmatic' ones (Yates, 2006, p. 10). Curriculum cannot be understood in isolation from the specific context within which it is situated. Curriculum inquiry, as Morgan and Lambert (2018) argue, needs to engage with and make links between both theoretical ideas and concepts, and the process of curriculum making. Questions about 'what counts' as knowledge cannot be divorced from questions about what institutions are trying to do in relation to curriculum and teaching within particular contexts and at particular times. This requires attention to policy and the institutional contexts in which new curriculum agendas are enacted.

Curriculum is always negotiated within these contexts, with those responsible for curriculum development not simply implementing curriculum policy directives but acting (or not acting) upon those in a range of ways, informed by structural and material constraints. As work in the field of policy sociology has demonstrated, curriculum and learning and teaching policies are not neutral but discursively produced with effects that are non-linear but interpreted, contested, and enacted differently across different sites of practice (Ball, 2006). Policies are always 'set against existing commitments, values and forms of experience' (Ball et al., 2011, p. 11) and can have effects beyond those intended, acting to mold understandings and practices in the contexts in which they are introduced (Shore et al., 2011). As Ball (1997, p. 270) has argued:

> Policies pose problems to their subjects, problems that must be solved in context. Solutions to the problems posed by policy texts will be localised and should be expected to display ad hocery and messiness. […] Policies do not normally tell you what to do, they create circumstances in which the range of options available in deciding what to do are narrowed or changed or particular goals or outcomes are set.

Drawing on these understandings, the research examined in this book considers the ways in which different actors interpreted and constructed the contexts in which they work, and the effects of this on their curriculum thinking and practice. Unbundled

online initiatives are emerging in a challenging context for universities and academic work (as discussed in Chaps. 1 and 2) and this is also a focus on how their curriculum implications are considered.

3.7 Conclusion

The concept of curriculum has significant value for understanding the implications of unbundled online learning. Despite contestations about what curriculum means, foregrounding curriculum and analytically distinguishing it from pedagogy illuminates important concerns, including those in relation to knowledge, politics, and educational futures. In this book, curriculum is understood as not settled but contested and negotiated over time. It is inevitably concerned with the question of what counts as knowledge and is therefore infused with points of contestation about what matters within the disciplinary field and for the education of students. Understanding these points of contestation, and the underlying principles and assumptions about educational knowledge which shape curriculum, provides important insights into the effects, challenges, or conditions of possibility created for knowledge within an education program. Bernstein's (1976) work also highlights the complex and interconnected relations between curriculum and pedagogy. This suggests that new pedagogies or platforms are not neutral with regard to the knowledge taught but contribute in substantive ways to what is made possible and how the knowledge of the subject is understood. This points toward problems with the separation of curricular and pedagogical responsibilities evident within unbundled online learning.

This chapter has addressed some general thinking about curriculum and how it can be understood and approached as an object of inquiry in higher education research. The following chapter expands on this discussion of curriculum in relation to two important issues: differences between disciplines and fields in the formulation of curriculum and the extent these are recognized in university strategy; and the push for constructivist pedagogies and its effects on curriculum construction.

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Chapter 4
Disciplinary Knowledge and Constructivism: Key Curriculum Debates

4.1 Introduction

Unbundled online learning is examined in this book in relation to its effects on curriculum and knowledge. This is explored in relation to two particular issues: differences in the formulation of curriculum between disciplines and fields and the extent these are recognized in university strategy, and the push for constructivist pedagogies and its effects on curriculum construction. This chapter outlines relevant theoretical debates about disciplinary knowledge and constructivism that are important for understanding these issues. It particularly considers long-held distinctions between disciplines and professional fields in their epistemic orientations and purposes and shows that the role disciplines and professional fields play in the formulation of curriculum today is subject to debate, with signs that new agendas are potentially destabilizing those traditional divisions and orientations. The chapter also examines the rise of constructivist theories of knowledge within education and debates about their effects on disciplinary knowledges and the university curriculum.

4.2 Disciplinary and Professional Forms of Knowledge

There has been a longstanding interest the historical, epistemic, social, and cultural features of academic knowledge fields, and with the differences between them (e.g. Abbott, 2001; Anderson & Valente, 2002; Becher, 1989; Becher & Trowler, 2001; Kagan, 2009; Knorr Cetina, 2006; Wellmon, 2015). This work has established important differences evident between particular forms of knowledge, and the different ways they are being impacted within the current university context, including in relation to curriculum.

Becher's work (1989; Becher & Trowler, 2001) has been particularly influential in these debates. This body of work is concerned with the cultural development of academic knowledge fields and their practices of belief formation and boundary

maintenance. It demonstrates the ways in which different knowledge fields hold norms, traditions, and belief systems which constitute different logics of knowledge and knowledge production (Nerland et al., 2010). It also understands the behavior and practices of academics to be strongly conditioned by these different structures and logics (Trowler, 2013).

As part of this work, Becher popularized a distinction between 'pure' and 'applied' and 'hard' and 'soft' forms of knowledge (adapted from Biglan, 1973a, 1973b). This typology differentiates academic fields of knowledge in terms of their degree of concern with knowledge application (as pure or applied) and their degree of paradigmatic and theoretical consensus (as hard or soft), showing how each has its own cognitive territory, intellectual values, and cultural domain. It categorizes academic knowledge fields according to four broad types: hard-pure (scientific fields), soft-pure (humanities and social sciences), hard-applied (engineering, medicine), and soft-applied (education, business studies, and the like). This work has been criticized for its essentialism and for the ways its typologies fall apart when academic knowledge practices are considered in detail (e.g. Nerland et al., 2010; Trowler, 2013). However, such typologies are nevertheless useful for understanding 'the broad shape of the structure or form of work that is observed in them' (Yates et al., 2017, p. 37).

One element of this debate has been concerned with the role different disciplinary (pure) and professional (applied) knowledge traditions play in curriculum construction. Neumann et al. (2002) have argued that the four broad types of disciplines identified produce significant differences in educational form, including in relation to curricular structure, educational purpose, teaching methods, and views on student learning and assessment (see also Neumann, 2001). In similar work, others have also highlighted the differences between fields and forms of knowledge in whether lecturers take a 'teacher-focused' or 'student-focused' approach (Lindblom-Ylänne et al., 2006), in the ways they perceive the value of generic skills (Krause, 2014), and in relation to the possibilities for integrating research within the university curriculum (Healy, 2005). Although such work has tended to focus on distinctions between the sciences and humanities/social sciences, it has also pointed to some distinctions between disciplines and professional knowledge fields, with Neumann et al. (2002, p. 408) suggesting that teaching in the professions is less concerned with examining conflicting evidence and exploring alternatives, and focuses less on precision and accuracy as criteria in the validation of knowledge.

However, work in this tradition has also been criticized for reducing knowledge to a type of frozen content where curricular knowledge is read off stable disciplinary forms (see Muller, 2009; Nerland et al., 2010), rather than as a site of knowledge construction, contestation, and potential change. Neumann et al. (2002, p. 406), for example, comment that within this perspective the curriculum 'essentially comprises a selection from the body of mainstream research material', with little acknowledgment of the difficult work this requires in practice. In related work, Barnett and Coate (2005, p. 53) have argued that current thinking about and understandings of the curriculum in relation to disciplinary and professional knowledge cultures are inadequate when set out against 'the fluidity, indeterminability and contestability of

the modern world' and its need for unpredictability and openness in how curriculum is formulated.

Trowler et al. (2013) have also questioned the extent to which the knowledge field conditions the curriculum and teaching practices of academics, arguing that such a position is too strongly essentialist. These writers consider the scope and strength of influence of disciplinary power, including on curriculum, but conclude that it is impossible to make a general statement about this since the influence of the discipline will vary depending on the context of practice. This work raises questions about the ways in which research within Becher's disciplinary and professional cultures perspective is too strongly conditioned to approach questions of curriculum in relation to differences between forms and fields of knowledge, rather than in terms of alternative perspectives. This is an important point and highlights the need to attend to the details of the practices occurring within particular contexts, rather than considering academic knowledge practices in ways that are abstracted from that.

Much work following the Becher/Biglan tradition has focused on the differences between 'hard' and 'soft' fields (i.e. the sciences and the humanities/social sciences), and Muller (2009, p. 210) notes that although a distinction is made between 'pure' disciplines and 'applied' professional fields, this 'has not been given the same conceptual underpinning as the "hard/soft" distinction'. Becher and Trowler (2001) suggest that professional fields are more amenable to outside intervention and lack the collectivity that convergence requires, but beyond that have little to say about the different constraints such fields might be subject to.

Bernstein's (1996) sociology of knowledge makes some related distinctions between forms and fields of knowledge. This work firstly distinguishes 'specialized' and 'systematically principled' forms of knowledge such as academic disciplinary knowledge from 'context-specific', 'everyday', or 'common-sense' knowledge (termed vertical and horizontal discourses). In relation to the former, a distinction is made between forms of knowledge with hierarchical knowledge structures (such as the hard sciences, e.g. physics) and horizontal knowledge structures (such as the social sciences, e.g. sociology). Hierarchical knowledge structures are 'pyramidical in shape and new knowledge is integrated into propositions that are as inclusive or general and as few in number as possible' (Muller, 2000, p. 84). Horizontal knowledge structures 'take the form of an expanding series of non-translatable *specialized languages* with non-comparable principles of description', some of which are (such as sociology) 'are learnt by acquiring a "gaze", a particular mode or style of recognizing and realizing what counts as reality' (ibid.).

A second important distinction is made between disciplines and professional fields, which Bernstein calls 'singulars' and 'regions'. Within this framework, disciplinary singulars (including both those with hierarchical and horizontal knowledge structures) are classified as 'oriented to their own development, protected by strong boundaries and hierarchies', and are seen to generate strong inner commitments toward knowing, centered in the perceived intrinsic value of the field (Bernstein, 1996, p. 52). Professional regions, in contrast, face outward toward various fields of practice, and draw together a number of singulars within an integrating framework.

Explaining these distinctions, Muller (2009) draws further contrasts between traditional professional fields such as law and medicine, which have developed stable ways of determining and updating professional knowledge and which have robust professional identities, and new professional fields such as business studies, which are more diffuse, are underpinned by a less stable body of knowledge, and cultivate relatively weak academic identities. Both singulars and regions are also distinguished from 'generic modes' which Bernstein (1996) defined as constructed with no connection to disciplinary sources or the cultural practices of specific professions.

Drawing on Bernstein, Muller's (2009, p. 216) work points to the importance of 'conceptual coherence' within disciplinary curricula, and the ways in which the different knowledge structures of different disciplines and fields 'impose constraints on appropriate curriculum form'. In this work Muller shows how different knowledge structures in the curriculum produce different principles of curriculum coherence in terms of sequencing, pacing, and the like, particularly in hard scientific disciplines where knowledge develops vertically and sequence is of particular importance. He argues that disciplinary curricula orient toward a form of conceptual coherence which is internal to the discipline, while the curricula of professional fields orient toward 'contextual coherence' in relation to work practices and the like. He suggests that for conceptually coherent curricula there is a presumption of 'high levels of abstraction and conceptual difficulty', while curricula oriented to contextual coherence is categorized as 'segmentally connected, where each segment is adequate to a context' (2009, p. 216). The former is validated internally (within the discipline), the latter externally (such as by a profession or professional body). This work sees the shifts toward agendas outside the discipline (vocational agendas, skills, attributes, and the like, for example) as problematic for disciplinary knowledge traditions.

These different theories point to important distinctions in how academic knowledge develops in universities and the potential effects of new reforms and priorities on different forms and fields of knowledge.

4.3 Disciplines and New Forms of Knowledge: The 'Mode 2' Debate

Alongside these debates, there has been increasing concern with the changing form of academic knowledge, and the potential for disciplinary knowledge to be undermined and superseded by new agendas. There have been concerns that academic knowledge is becoming commercialized and commodified (Barnett & Peters, 2018; Naidoo, 2005; Peters, 2007; Slaughter & Cantwell, 2018; Slaughter & Rhoades, 2004), that universities are losing their distinctive purposes in relation to knowledge production and dissemination (Barnett, 2000; Barnett & Peters, 2018; Peters, 1999; Readings, 1997), and an upsurge of interest in the global 'knowledge economy' and 'knowledge society' and its implications for higher education (e.g. Blackmore et al., 2010; Gumport, 2002; Innerarity, 2013; King et al., 2013; Knorr Cetina, 2006;

Maassen et al., 2018; Peters, 2007; Wright, 2016), as well as in the changes potentially produced by new digital technologies (Peters, 2007; Peters et al., 2012). These arguments highlight the increasing attention to 'relevance' and to the kinds of knowledge that are economically powerful and the increasing competition faced by universities against new sites of knowledge production.

Such work points to changes in how knowledge is valued and validated, and to a changing role of universities in the production of knowledge. As Barnett (2000, p. 35) writes:

> The problem with knowledge for the modem university is not that knowledge has come to an end. Rather, it is that there are now many knowledges vying for a place within the university. It is not that the clerks have lost their monopoly over the production of high status knowledge; [...] it is that they have lost their monopoly over the definitions as to what is to count as knowledge.

These debates raise particular questions for the role and value of disciplinary knowledge structures in the twenty-first century, and the ways these are being reframed and undermined within the current university context. In the forward to Michael Peters' book *Knowledge Economy, Development and the Future of Higher Education*, Fazal Rizvi captures the range of elements that connect with these concerns when he writes:

> the long-established disciplinary forms of knowledge around which universities were organised no longer appear so self-evident, as the focus has shifted from acquiring inherited knowledge to problem solving and innovation useful to the knowledge economy [...] with the realisation that knowledge is produced in a socially distributed manner, and depends fundamentally on collaborations and networks, universities now have to simultaneously compete with and cooperate and share resources with other centres of knowledge production [...], requiring universities to engage with global processes, both by cooperating with education systems abroad and by competing with them. (Rivzi in Peters, 2007, pp. viii, x)

Central to these debates is an argument put forward in the early 1990s which coined a widely referenced and influential distinction between 'mode 1' and 'mode 2' forms of knowledge (Gibbons et al., 1994). This argument, first developed in a book entitled *The New Production of Knowledge*, proposed that research and knowledge production was moving away from traditional forms of academic hierarchical disciplinary activity ('mode 1') to 'mode 2' knowledge production, associated with interdisciplinary research, practical and problem-focused aims, and defined by contexts of application. Mode 2 is marked by an increase in the number of sites of knowledge production, including within think-tanks, government laboratories, and industry. The argument associated mode 1 with disciplinarity, homogeneity, and traditional quality control (i.e. peer review), and mode 2 with transdisciplinarity, heterogeneity, and novel forms of quality control, subject to different criteria about what constitutes 'good' research (see Hessels & Van Lente, 2008). This argument was further developed by some of the original authors (e.g. Nowotny et al., 2001, 2003). In a subsequent book titled *Rethinking Science*, Nowotny et al. (2001) argued that further shifts are also evident in a de-differentiation of particular social spheres (e.g. state, market, culture), with significant implications for university operations.

This argument has had wide resonance across higher education, and been highly influential within higher education policy debates, particularly within Australia (see

Hessels & Van Lente, 2008; Woelert & Millar, 2013; Yates et al., 2017). The original model has been criticized for setting up too strong a dichotomy between the two modes of research (see for example Weingart & Padberg, 2014). However, despite this, as Hessels and Van Lente (2008) argue, the practices associated with mode 2 research and its concern with application and collaboration are increasingly evident within universities today. Although these practices are not yet replacing mode 1 or disciplinary forms of authority and knowledge production, they are occurring alongside and within them (see Yates et al., 2017). The original text is over 25 years old however, the concerns it raises about the extent to which disciplinary traditions are becoming subject to outward-facing mechanisms and evaluative criteria and the implications of diminishing academic control over 'what is to count as knowledge' (Barnett, 2000, p. 35) continue to be relevant (see Yates et al., 2017). Such arguments raise questions about the current emphasis placed on disciplinary traditions and the value of dichotomies in understanding wider shifts.

In a related argument, Bernstein (1996) has suggested that knowledge within universities is becoming increasingly 'regionalized' away from the concerns of the disciplines and oriented to the needs of students, employers, and governments. As proposed by Young (2008), this argument has resonances with the mode 2 arguments, but draws further attention to the ways in which new emphases associated with mode 2 are potentially affecting disciplines in more significant ways than professional fields. As part of the shifts identified within the mode 2 arguments, academic identities are becoming increasingly defined externally by market forces, and this is likely to have stronger implications for disciplines, where inwardness has traditionally been more important. These concerns are theoretically driven, but similar issues have also been raised in empirical work, including in relation to the implications of research assessment exercises and measures of research productivity (Yates et al., 2017) and the implications of marketization (Ek et al., 2013) on disciplines compared with professional fields.

In relation to the curriculum, these debates have led to contestation about what is emphasized, including the extent to which curriculum should derive from disciplines compared with interdisciplinary traditions; the value of different kinds of knowledges and the relative emphases given to them (e.g. knowing how compared with knowing that, competencies and generic skills compared with disciplines); and the implications of reframing curriculum in terms of outcomes and skills agendas (e.g. Ensor, 2004; Karseth, 2006, 2008; Maassen et al., 2018; Millar, 2016; Muller & Young, 2014; Naidoo, 2005; Stavrou, 2009; Yates et al., 2017; Young & Muller, 2015). Barnett (2000) has argued that the university has become 'swamped with rival claimants for worthwhile knowing', including in relation to contemplative knowledge, knowing-in-action, and generic skills. These competing perspectives present challenges for higher education institutions and governments, who are today struggling with questions about 'the extent to which the content of the learning should be derived from what matters in the world now (big problems, "grand challenges", workplace competencies and the like) or, conversely, whether moves in this direction tend to hollow out the learning' (Yates et al., 2017, p. 5).

In the early 2000s, Ensor (2004, 2006), and Karseth (2006, 2008) analyzed changing curricular discourses in South Africa and Europe respectively, documenting shifts from a traditional 'inward-facing' disciplinary discourse centered around sequential learning paths, cognitive coherence and the apprenticeship of students within disciplinary traditions, toward a new 'outward-facing' credit exchange/modularization discourse which advocates greater flexibility, relevance to the workplace, interdisciplinarity and portability. Ensor (2006) and Karseth (2006) also identified a separate vocational discourse, which they suggested is driven by social legitimation and the need for trained employees. This vocational discourse was seen to orient outwardly toward practice in line with the credit exchange/modularization discourse but with a focus on particular rather than generalized requirements (Karseth, 2006).

Karseth and Ensor argue that the credit exchange/modularization discourse both aligns with and advocates for the 'mode 2' approaches to knowledge discussed above (Gibbons et al., 1994) and orients toward the requirements of a globalized, labor market. According to Karseth (2006), this discourse is undermining the particular requirements of both professions and disciplines, particularly in the hard sciences, where sequential requirements are important. However, in Ensor's (2004) policy analysis of shifts to the higher education curriculum in South Africa in the late 1990s, she found that both discourses were present in policy formulation, but that the disciplinary discourse remained primary within curriculum restructuring in practice, despite some reorganization of how that was packaged.

In related work, Stavrou (2009) has also analyzed the 'regionalization' of curricular knowledge within French universities in response to the Bologna process, drawing on Bernstein (1996). She argues that within regionalized curricula where subjects and courses are formulated around integrating ideas that bring together multiple disciplines such as urban studies, disciplinary knowledge is decontextualized and the boundaries defining what counts as knowledge are weakened. Brady (2014) and Millar (2016) have also drawn on Bernstein (1996) to develop similar arguments in relation to business studies teaching and interdisciplinary teaching respectively. In relation to business studies, Brady argues that subjects are being increasingly designed within a generic mode in response to the discursive and material forces of marketization, with knowledge and pedagogy becoming fragmented and amorphous as a result.

Collectively, this work raises concerns with the emphasis on skills and instrumental concerns dominating higher education, and the ways this potentially undermines disciplinary knowledge structures.

4.4 Constructivism and the Knowledge Question

A second important debate concerning the changing context of disciplinary and academic knowledge relates to the rise of constructivist theories of knowledge and learning and worries that shifts in this direction have decentered epistemic concerns.

Constructivist theories are both about learning and how people construct meaning and knowledge as individuals and collectively, and about the status, growth, and development of scientific knowledge (see Sjøberg, 2010). Sjøberg (2010, p. 485) argues that what is understood as constructed within the different theories associated with constructivism encompasses different elements. These range from (1) 'our individual knowledge of the world'; (2) 'the shared and accepted scientific knowledge about the world as it exists in established science'; and (3) 'the world itself'. Some constructivist learning theories affirm the constructed nature of the first of these claims (e.g. that students construct their own knowledge) but reject forms of constructivism which contradict scientific rationality. Others accept the first two, and more radical theories promote the third. However, Sjøberg suggests that although the term constructivism captures a diversity of traditions, there are some points of commonality. He defines these common tenets as:

1. Knowledge is actively constructed by the learner, not passively received from the outside. Learning is something done by the learner, not something that is imposed on him.
2. Learners come to the learning situation (in science, etc.) with existing ideas about many phenomena. Some of these ideas are ad hoc and unstable; others are more deeply rooted and well developed.
3. Learners have their own individual ideas about the world, but there are also many similarities and common patterns in their ideas. Some of these ideas are socially and culturally accepted and shared and are often part of the language, supported by metaphors, etc. They also often function well as tools to understand many phenomena.
4. These ideas are often at odds with accepted scientific ideas and some of them may be persistent and hard to change.
5. Knowledge is represented in the brain as conceptual structures and it is possible to model and describe these in some detail.
6. Teachers have to take the learner's existing ideas seriously if they want to change or challenge these.
7. Although knowledge in one sense is personal and individual, the learners construct their knowledge through their interaction with the physical world, collaboratively in social settings and in a cultural and linguistic environment.

(Sjøberg, 2010, p. 486).

This summary highlights the common emphasis of constructivist theories on the importance of ensuring teaching engages with students' own pre-conceptions and understandings.

In response to the popularity of constructivist theories, concerns have emerged with what Green (2010, p. 47), describes as 'a widespread and even systematic undervaluing of knowledge' in what can be seen as 'an excess of constructivism'. Many have argued that while socio-cultural and situated constructivist approaches have drawn attention to important elements of learning not well recognized in individualist theories, such work has also tended to focus too strongly on the social elements of learning, decentering attention to the epistemic and downplaying the role

of formalized knowledge (see for example Becher & Parry, 2005; Lahn & Jensen, 2006; Nerland et al., 2010).

As part of these debates, a body of scholarship has emerged within the sociology of education concerned with 'social realism' and 'bringing knowledge back in' (e.g. Barrett et al., 2018; Moore, 2007; Muller, 2000; Wheelahan & Moodie, 2021; Young, 2008; Young & Muller, 2015), which puts forward a critique of constructivism as relativist and aims to move attention away from identities and standpoints toward the value of disciplinary knowledge. Drawing particularly on Bernstein and his distinctions between everyday and specialized knowledges discussed above, this work argues that the processes and organization of disciplinary knowledge and the way in which such knowledge develops over time within disciplinary communities allows for more powerful forms of knowing than knowledge that is oriented toward concrete problems and generic processes (e.g. Moore, 2007; Morgan et al., 2018; Muller, 2000; Young, 2008; Young & Muller, 2013). The work identifies some important elements that are missed by constructivist theories of knowledge and knowing, including the epistemic effects of particular ways of developing and structuring knowledge.

However, it has also attracted significant and powerful critique. This has drawn attention to its focus on cognitive purposes and limited regard for ethical concerns about what and whose knowledge matters (Zipin et al., 2015), and its tendency to background the complex histories and politics of curriculum selections and the ways curriculum and knowledge is made within educational institutions (Morgan & Lambert, 2018). As Rudolph et al. (2018, p. 27) acknowledge, disciplinarity has a 'shine' in the ways it offers up new perspectives and frameworks, but also a 'shadow' in that it is biased and can work to uphold particular ways of understanding the world that are exclusory and perpetuate inequalities, and these issues are not acknowledged within the social realist framework.

These arguments are undoubtedly important but the shifts the social realists point to regarding the undermining of disciplinary knowledge still warrant close attention. This work identifies some important elements that are missed by constructivist theories of knowledge and knowing, including the epistemic effects of particular ways of developing and structuring knowledge. It also highlights the importance of differences between disciplines and professional fields in how curriculum is formulated and structured over time, and the ways in which the knowledge structures of different disciplines and fields impose constraints on the form of curriculum.

Alongside the social realist work, related critiques have pointed to issues with the ways in which the concept of constructivist learning has been taken up in the university context, drawing attention to the tendency to discount differences between disciplines and fields, the importance of what is taught, and the professionalism of the teacher. Gert Biesta (2010, 2014, 2017) in particular has decried 'the rise of new theories of learning that have put emphasis on the active role of students in the construction of knowledge and understanding and the more facilitating role of teachers in this' as part of his prominent critique on the 'learnification' of education (2014). Biesta is critical of the ways in which the learning theory of constructivism has been taken up as a pedagogy within university classrooms, arguing that such a

shift has transformed educational practice and radically changed common perceptions of what teaching comprises, discrediting didactic (or 'instructivist') teaching approaches in ways which are problematic. His concern is that in the focus on student activity, constructivism appears 'to have given up on the idea that teachers have something to teach and that students have something to learn from their teachers' (2014, p. 46). Biesta (2010, p. 3) discusses the example of constructivist pedagogies premised on collaborative learning where the role of the teacher is as facilitator and classrooms are activity and discussion-centered. He comments that although this form of teaching can be positive in some situations (where the aim is to have students explain their views to others to demonstrate understanding for example), in others it may be detrimental (for example in situations where the aim is the mastery of a complex skill). Biesta (2010, p. 4) argues:

> Whether collaborative forms of student activity are to be preferred therefore entirely depends on the purpose of the activity, that is on the outcomes that are considered to be educationally desirable. It is only when we are able to say something about the latter question than we can begin to make decisions about how we might want to achieve what is aimed for.

While the work discussed in Chap. 2 (e.g. Barr & Tagg, 1995; Biggs & Tang, 2011); emphasizes the importance of the role of the teacher in determining the most appropriate method for teaching particular content and ensuring pedagogical approaches are 'fit for purpose', Biesta's concern is that the uptake of these arguments within universities (and schools) tends to discount this.

Another element of the debate about constructivist teaching concerns issues of precision in relation to what 'constructivist' teaching looks like and the ways the term is used (Sjøberg, 2010; Van Bergen & Parsell, 2019). As Sjøberg (2010, p. 485) writes:

> the label constructivist teaching is used by many authors as more or less synonymous to any teaching that is somewhat child-centered, caring, inclusive, or based on enquiry, discovery, or any kind of active involvement from the learners. The literature abounds with lists of aspects that characterize constructivist classrooms, teachers, curricula and assessment. Most of these articles and books have a low precision on the definition of the term but they all seem to associate the term with something unquestionably positive.

He suggests that constructivist theories of knowledge and learning provide little clarity regarding what teaching should look like in practice. As a collection of diverse theories of knowledge, constructivism raises questions about whether teaching should begin by working directly from a particular problem rather than predefined underpinnings, and about the relative emphasis to be placed on what the learner does. However, as Sjøberg (2010, p. 489), argues, constructivism as 'a set of principles for learning does not directly translate into a set of recommendations for good teaching' as 'one cannot locally deduce a scientifically-based pedagogy from a theory of learning'.

Additionally, as Gewitz and Cribb (2009, pp. 129–130) point out, within the realization of constructivist approaches, 'educators have to find a way of drawing a line between supporting students' perspectives and identities and challenging students' identities where these seem to be based on and reinforce misconceptions about

reality'. Labeling particularly pedagogies as 'constructivist' does not resolve the critical teaching issue of striking the balance between supporting students in developing their own understandings and aligning those understandings with the knowledge base of the course.

This work points to the ways in which different curriculum constructions cannot be assessed or 'good' or 'bad' or even 'better' or 'worse', irrespective of purpose and content of the educational context in which they are situated, as well as the ways in which different configurations can give rise to both positive and negative effects. The attention to students and what they are doing, for example, can have positive effects on student engagement, but it can also obscure other important considerations, including the importance of disciplinary perspectives.

4.5 Conclusion

This book takes up two particular issues to understand the implications of unbundled online learning on curriculum issues. These are, first, differences between disciplines and fields in the formulation of curriculum and the extent these are recognized in university strategy, and second, the push for constructivist pedagogies and its effects on curriculum construction. These issues need to be understood in the context of longstanding theoretical debates about disciplinary and professional knowledge and constructivism. In particular, there are concerns that disciplinary knowledge is being replaced or sidelined by new collaborative and interdisciplinary forms of knowledge development and undermined by a context in which there is an increasing tendency to privilege generic vocationally oriented agendas. As discussed in Chap. 3, the higher education curriculum has been underexplored as a critical site of struggle over what counts as knowledge. However, emerging scholarship has highlighted some important distinctions evident in how the curriculum is formulated within different disciplines and professional fields. This work raises a number of important questions in relation to the implications of new developments on disciplinary forms of knowledge and the effects of constructivist theories on university teaching practices. These issues are taken up in the rest of the book to explore the curriculum implications of unbundled online learning.

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Chapter 5
Making the Case for Unbundled Online Initiatives

5.1 Introduction

This chapter introduces two universities that embarked on unbundled online initiatives in the early to mid-2010s: referred to here as 'SandstoneU' and 'TechU'. It tells the story of the new unbundled initiatives introduced at those universities, the rationales behind those initiatives, and how issues of curriculum, pedagogy, and knowledge were framed as part of this. This chapter considers the ways in which the policy problem and online learning solution were constructed at senior levels of the university and the meanings and assumptions about curriculum and knowledge evident in relation to this, pointing to the tensions and contradictions manifest in how unbundled initiatives are understood.

The experiences of these two universities in this early period and the similarities and differences between them provides insights into the implications of unbundled online initiatives and how they are positioned by university leaders and as part of wider university strategy. Although the context universities are operating in has changed since this time, these experiences remain relevant for understanding how universities might be approaching and understanding the affordances of unbundled online learning today. The primary partnerships each university was engaging with at the time of the research are still operating and both universities have continued to engage with unbundled models and to advocate similar strategies and aims on their learning and teaching websites.

This chapter draws on university policy documents, website text, and interviews with university leaders conducted as part of the research project in 2012–2014. All interview participants are referred to by pseudonym and the titles of the policy documents have been modified in the interests of protecting institutional anonymity. A full list of the kinds of documents collected and the interviews held as part of this research project is provided in the appendix.

5.2　SandstoneU, TechU, and the New Unbundled Initiatives

The two universities discussed in this chapter represent different kinds of Australian universities. SandstoneU is a longstanding research university with considerable prestige but prior to the 2010s had little involvement with online learning or previous forms of distance learning. It is located in a major city in Australia and offers a broad spectrum of degrees and subjects across a range of discipline areas. The university is a member of the 'Group of Eight', a body comprising Australia's eight leading research universities. All Group of Eight universities are ranked in the top 150 institutions worldwide in the *Times Higher Education* World University Rankings (Times Higher Education, 2021). When MOOCs first emerged in 2012, teaching at SandstoneU was primarily conducted on campus. Most subjects used the university's Learning Management System (LMS), but primarily for administrative rather than teaching purposes. However, the use of digital technologies had become more significant within the university's teaching and learning strategy and attempts had been made to encourage greater use of digital technologies among university staff. The university's first eLearning Strategy was developed for the period 2012–2014, following the publication of an eLearning Discussion Paper and the appointment of a new Director of eLearning the previous year.

TechU, in comparison, is a former technical college located within a major Australian city. It achieved university status in the 1990s following the unification of the tertiary system and continues to offer undergraduate, postgraduate, and vocational education programs. The university has been ranked in the top 100 universities under 50 years old by the *Times Higher Education* World University Rankings. Its focus has predominantly been on 'applied' rather than 'pure' research, and its disciplinary and professional offerings are less broad than SandstoneU. TechU has been involved with online learning via Open Universities Australia (OUA), an online learning body it co-owns with six other Australian universities.

These universities are differentially positioned in the Australian and global higher education systems and this had effects on how they engaged with MOOCs and Online Program Management (OPM) providers. As discussed in Chap. 2, partnerships between universities and commercial providers have tended to reinforce rather than disrupt existing hierarchies between universities. More elite universities have been afforded easier opportunities to engage with globally significant OPM partners (see Ivancheva et al., 2020; Swinnerton et al., 2020). At the same time, unbundling practices in formal university teaching have been evident on a more significant scale in universities of lower standing (McCowan, 2017).

SandstoneU was one of the first Australian universities to engage with MOOCs, partnering with a prominent US-based MOOC platform in late 2012, and then subsequently with another OPM provider the following year. The MOOC partnership arrangement was typical of mainstream MOOCs and comprised a teaching model which was primarily restricted to video lectures, online quizzes, and student-directed discussion forums. For most subjects, content was delivered via lecturer-developed

video lectures over weekly time frames. Students were then tested on their knowledge of that content through automated weekly quizzes, and able to discuss the content among themselves via student-initiated discussion forums. Following this partnership, the university subsequently engaged with a second OPM partnership arrangement comprising a consortium of universities primarily based in the US. In response to the popularity of MOOCs at the time, this initiative proposed to replicate an 'elite' teaching experience by combining asynchronous student-paced content with live synchronous online sessions in the style of a professor-led tutorial. The approach was intended to mirror a typical on-campus lecture/tutorial pedagogy and online subjects were expected to be comparable to their on-campus counterparts.

TechU was one of the first Australian universities to engage in an OPM partnership to form a new unbundled online initiative just before MOOCs emerged on the world stage, and later partnered with an Australian-based MOOC provider. The OPM initiative was a joint venture between the university and a commercial partner and was formed in response to the Australian government's decision in 2012 to lift previous limits on student numbers in government-supported university places (see Norton & Cakitaki, 2016). It comprised a model of online subject development where subject content was developed by lecturers employed by TechU, and then delivered by externally employed tutors with relevant professional expertise. Subjects were offered online and students were enrolled as TechU students. Under the partnership arrangement, each subject was developed through a collaboration between a lecturer located at TechU and a learning designer located at the OPM company. Neither the lecturer nor the learning designer played any role in the teaching of the subject, but teaching responsibilities were instead allocated to the online tutors. The online subjects were required to be 'equivalent', although not identical to on-campus subjects. Following the hype around MOOCs in 2012, TechU subsequently partnered with an Australian-based MOOC platform in 2013. This platform followed a similar pedagogical structure to the SandstoneU MOOC, comprising a mix of video lectures and automated quizzes.

The initiatives offered at SandstoneU and TechU during this period included partnerships to offer both MOOCs and formal subject and degree programs. In these cases, the MOOCs differed from the other initiatives in that they did not attract fees, were not credit-bearing, and were therefore not subject to the same degree of control in terms of government and academic regulatory requirements (Czerniewicz et al., 2014). The subjects offered through the partnerships with OPM providers were expected to be taken as part of standard undergraduate degrees, while the MOOCs offered were not tied to broader programs. These initiatives are referred to in this chapter as MOOC and OPM initiatives, although MOOC providers have since expanded their offerings to join the wider OPM marketplace (Thomas & Nedeva, 2018).

These initiatives all had different pedagogical affordances and were designed with different audiences in mind. However, they were all commonly offered in an unbundled mode (McCowan, 2017; Neely & Tucker, 2010), with subject content developed by lecturers within universities but delivered via platforms owned by the

OPM and MOOC providers. With the exception of the OPM initiative at SandstoneU, the lecturers responsible for subject content were involved very little in the delivery of the subject. All the initiatives were guided by principles of flexibility and the desirability to maximize students' own subject selections. They included little to no prerequisite requirements and content and resources for all subjects were developed in full prior to being taught.

5.3   OPMs and MOOCs as Mechanisms for Changing Teaching Practices

The period in which these initiatives were introduced was a time of uncertainty for Australian higher education universities, made more pronounced by increasing cuts to public funding and the removal of government-imposed limits on the number of student places (Marginson, 2013; Norton & Cakitaki, 2016). Within this context, the two universities framed the rationale for engagement with unbundled online initiatives in broadly similar ways.

In line with the heightened policy attention to university teaching discussed in Chap. 2, this common rationale was about the changing nature of student's expectations and needs for flexibility and support and the importance of addressing these via new pedagogies and teaching practices to attract students in a competitive marketplace. The SandstoneU eLearning strategy, for example, located its proposals within the context that 'students' expectations about, and relationship with, the university had changed in the last two decades'. It commented that 'these changes have placed an onus on universities to provide students with more flexible and convenient access to higher education' (SandstoneU, eLearning strategy, 2011). The paired 'eLearning discussion paper', further noted: 'increased diversity is likely to mean increased competition as well as new opportunities and risks in all parts of the higher education sector' (SandstoneU, eLearning discussion paper, 2011). Likewise, at TechU a press release promoting the new unbundled online initiative commented that the venture's aim was to 'seize a space that is becoming increasingly important' and 'extend our reach in delivering education to students […] giving them access to a greater range of study options and unprecedented flexibility' (TechU, press release, 2011). In these documents, the policy context at both universities was framed in relation to competition for students and the policy problem was positioned as teaching approaches that are too little aligned to students' needs and expectations.

At both universities, the engagement with the unbundled online learning initiatives was instigated within the context of broader drives to change and reframe university teaching practices. These universities had strategy plans concerning the use of digital technologies that comprised both new initiatives and more general goals to change technology use and teaching practices across the university. Olivia, for example, commented that at SandstoneU:

> …a key really to the strategy was that we wanted to be active both at the high-end development front but also bring the whole university around to making better use of technology in teaching irrespective of the kinds of teaching that they were doing. And there is clear evidence from students that they are looking for more of that. (Olivia, Interview 1)

At TechU, Sarah similarly noted that at the strategic level her responsibilities were not just about the oversight of new initiatives, but about driving changes in teaching practices across the university. These responsibilities included staff professional development, the management of digital technologies within mainstream programs, oversight of unbundled online initiatives, driving change in learning, teaching and assessment, and increasing uptake of novel approaches.

Across the university policy documents and interviews, the use of digital technologies (and unbundled online learning initiatives as part of this) was positioned as an opportunity to rethink current approaches and the means through which new forms of 'relevant' and 'productive' teaching could be achieved. In various documentation, discussion of the unbundled online learning initiatives at SandstoneU emphasized the ways online opportunities 'challenge traditional ways of delivering education' (SandstoneU, media release, 2012) and 'provide previously unimaginable learning experiences' (SandstoneU, learning and teaching website, 2012). SandstoneU's eLearning Strategy argued:

> …online information and communication technologies have become essential in providing students with efficient, flexible and convenient access to University-based teaching, learning and assessment. […] However, there are distinct advantages to using 'eLearning' or 'educational technology' over and above its more functional efficiencies and affordances. When information and communication technologies are combined with carefully designed educational activities, they can provide students with deeply engaging and highly effective learning experiences that would otherwise be difficult to create. Educational technologies do not simply improve students' access to information and learning interactions, they can expose students to information, ideas and knowledge in new ways that make learning more effective, engaging and individually relevant. (SandstoneU, eLearning strategy, 2011)

Here, the strategy emphasized the potential of 'new ways' of exposing students to 'information, ideas and knowledge'—new pedagogies—that provide greater potential for engagement and individualized/personalized learning.

Engagement with online learning was positioned within the university policy documents as offering the potential for new and better ways of teaching. At the same time, good teaching (both online and on campus) was defined in relation to the levels of interaction afforded to students. The strategy paper positioned using technology 'for highly engaging and interactive teaching and learning experiences' (SandstoneU, eLearning strategy, 2011) as its focus, and the first strategic priority area was identified as to 'provide greater emphasis on student interaction and engagement by reorienting how information and communication technologies are used in teaching, learning and assessment' (ibid.). In imagining a vision for the university for the future, SandstoneU's eLearning discussion paper suggested a move away from large group lecturing toward inquiry learning. It promoted the use of technology 'to allow staff and students to easily and dynamically present their ideas and understandings' and 'provide simple mechanisms for interaction, discussion and feedback'

(ibid.). The SandstoneU OPM initiative was also originally framed within the context of developing 'enhanced student interaction and engagement' as part of the broader eLearning strategy (SandstoneU, internal report, 2013), and the initiative website highlighted an emphasis on 'interactivity', 'real world learning', and 'social engagement' in its marketing materials (SandstoneU OPM initiative website, 2013). There was also a strong attention to 'flipped classroom' approaches which were popular at the time. A 'flipped classroom' approach is one where the delivery of content is shifted to outside of class time and formal class times are used for structured interactive activities relating to that content (see Bergmann & Sams, 2012). In line with this approach the university's eLearning Discussion paper argued:

> It is imperative […] we ensure that interactions among academic staff and students are effective in promoting engagement, learning and broader student development. This means that we must take full advantage of all opportunities we have to prepare students for interactions that are effective for learning and to allow precious class and on-campus time to be more productive. (Sandstone University, eLearning discussion paper, 2011)

Here, the emphasis was on creating space for interactive pedagogies by separating the preparation of students for interactions (through the delivery of content) from the interactions themselves.

Similar views about good pedagogy and the impetus for the unbundled online learning initiatives were promoted at TechU. The management unit responsible for online teaching described its intention as 'transforming traditional learning using new and more effective technologies and pedagogies' (TechU website, 2013) and the university's flagship OPM initiative was specifically designed with a 'socio-constructivist' pedagogical approach in mind, with the intent to encourage 'active learning' and address students' needs. On the initiative website, the approach was defined as 'designing activities that foster collaboration amongst students using a social constructivist learning model' and students were advised 'You will be engaged in an active learning environment, undertaking regular online activities' (TechU website, 2013). The 'about' pages of the website emphasized that the approach draws on 'best practice in online learning' and allows students to join a community that is 'collaborative, supported and connected'. There was an emphasis on engagement and working collaboratively, with best practice defined in relation to enhanced interaction, interaction with peers, and regular feedback.

Across the two universities, there was a strong sense that dominant teaching practices were insufficient to meet the needs of a changing student body—in attracting students and in providing them with the flexible forms of study that they were seeking. At TechU in particular, the university leaders held strong views about the pedagogical inadequacies of most lecturers, and the OPM initiative positioned learning advisers as primarily responsible for the pedagogical form of the subject, with lecturers responsible for its curriculum content. In introducing the model in an interview, university leader Lydia described how her former Vice Chancellor had advocated the approach to her, saying:

> He actually said to me 'I don't believe that it's possible for every academic within the university to suddenly develop a passion or capacity to teach online, I don't believe it, it

can't happen, it doesn't work I don't think they are the right people to be doing that' […] He didn't think it was the best use of academic time. So […] he said to me 'I have this vision of this academic with their yellowed and wrinkled lecture notes giving them to somebody who can go and put it online and they can go back into their office and write another grant proposal.' (Lydia, Interview 1)

This description embodies negative perceptions about academic teaching—that lecturers teach the same thing year in and year out following their same 'yellowed and wrinkled lecture notes' and that research and not teaching or pedagogical practice is their primary concern. In line with some of the concerns about 'instructivism' outlined in Chap. 2 (Barr & Tagg, 1995), university leaders at both universities were critical of a perceived tendency for lecturers to overload their subjects with 'content', at the expense of allowing for student activities and interaction, and in ways which undermined the coherency of the subject in targeting content toward a predetermined outcome (discussed further below). This critique focused on the 'too much' issue, seeing a role for management in assisting lecturers to 'curtail content' and reframe the emphasis toward assessment and student activities.

At both universities, the OPM and MOOC initiatives were also positioned as an opportunity to learn about how students learn and what kinds of pedagogies are most effective. MOOCs in particular were seen to provide significant benefits in enhancing the 'visibility of the student learning process' (Olivia, SandstoneU, Interview 1) and the university leaders commented on their intentions to use the data derived from student actions within the subjects—the learning analytics – and the experience of MOOC teaching to derive understandings about learning and student motivations that might then inform other kinds of interventions. At SandstoneU, Olivia commented in relation to MOOCs, 'there is a much broader agenda around what we learn […] and how to build course designs, assessment regimes, learning analytics frameworks from a course that will have much broader value to the university' (Olivia, Interview 1). At TechU, Sarah similarly commented that in her view the biggest impact of MOOCs was likely to be the ways big data would change how subjects are designed 'because people are doing things very differently so they think differently' (Sarah, Interview 1). Here, MOOCs were seen to generate valuable data which might then be used to improve learning beyond the MOOCs context—to understand in general terms what is useful in engaging students and in keeping them on task.

This emphasis on pedagogical change was also tied to a concurrent concern with using new initiatives to drive ways of redeveloping curriculum that 'start with the end in mind': what has been termed an 'outcomes-based approach' or 'alignment-based' approach to curriculum (i.e. Biggs & Tang, 2011, discussed further in Chap. 2). At TechU, Sarah, a university leader with responsibilities for both online initiatives and broader teaching and learning practices, argued that curriculum design should 'start with the end in mind' in terms of thinking about outcomes and assessment. She commented that moving subjects online required an emphasis on outcomes to ensure coherence:

We should be driving from learning outcomes, start with the end in mind and work back because […] what a lot of people do is put a bit of digital stuff in and everything else stays the same. So you get this misalignment. Whereas if you start with assessment and feedback

> and opportunities for that, they see it as part of the learning and then work back on your learning design, then you get a coherent course. (Sarah, Interview 1)

Sarah saw the process of moving a curriculum online as an opportunity for designing a 'coherent course' and saw this as less about enforcing a particular curriculum approach than a particular approach to curriculum design:

> I suppose I think the curriculum should dramatically change but I would not be able to say it would have to change from this to this, I am just saying the process of development needs to be changed. (Sarah, Interview 1)

This attention to process was about attention to alignment and outcomes and was seen as a necessary shift within broader curriculum development practices. In combination with the attention to interactive pedagogies and active learning, online learning initiatives were positioned as a key mechanism for reforming how staff approached their teaching. Sarah commented:

> I do not believe in doing workshops to try and change what academic staff do because it is a huge waste of time. It doesn't matter if they like it or they don't like it, they do not change their practice. Whereas if you help them to redesign their courses then they have got a different product and they work with that essentially. (Sarah, Interview 1)

Here, the necessity of reworking a subject to align with the pedagogical and design imperatives of a new platform arrangement was seen as a mechanism for changing curriculum and teaching practices.

Designing curriculum with outcomes in mind was not seen as something the typical academic was likely to consider. Lydia, a university leader with responsibilities for the TechU OPM initiative, similarly saw academic curricular practices as out of step with the outcomes-oriented approach required for online subject development. She commented:

> So when we come in and go 'okay what are your learning outcomes?' They go 'this is the book I use'. 'No, we are not actually interested in your content, we will come to that, what are your learning outcomes, what are your assessments'. And […] a lot of the academics have […] actually said 'oh I have never thought about this stuff before, no one has ever sat down and helped me think this through or supported me to think this through.' (Lydia, Interview 1)

The TechU OPM initiative was explicitly designed to counteract this issue. In line with the initiative's stated pedagogical approach, learning activities were expected to scaffold toward assessments as well as the overall learning outcomes established for the subject to 'map a coherent consistent program.' (Lydia, Interview 1)

At SandstoneU, the university leaders similarly saw unbundled online initiatives as providing an opportunity to move toward an outcomes-based approach to subject design. In relation to the SandstoneU MOOCs, Olivia commented:

> …when we originally made contact with [the MOOC platform], they had found that a lot of the academics that they were already working with had vastly underestimated the amount of time that needed to be put into the development of automated assessment regimes and that really is a very different kind of thing to what we would normally do on campus. Assessment sometimes is a little bit of an afterthought whereas here it is absolutely central to the kind of

> design of the course. […] So they [the learning design team] have kind of talked them through what the steps are and…thinking about where they want the students to get to, and work back and what needs to happen when if they are going to be able to achieve that outcome. All excellent educational practice but it is actually amazing in some cases that is actually a new experience for people because they might have inherited a course or there is just sort of a general understanding that certain topics have to be in a first-year course on this kind of subject. (Olivia, Interview 1)

This comment illustrates the ways in which the structure of the MOOC platform was seen to encourage the kinds of approach to assessment and subject design seen as desirable—as central to the subject and as what the subject was built toward, rather than as an afterthought.

At both universities, therefore, attention to outcomes was seen as important, but there was a view that this received too little attention from lecturers in their subject development. The unbundled online initiatives were seen as one mechanism which might assist academic thinking and practices in this regard.

University leaders at the two universities differed in how they saw the implications of unbundling teaching responsibilities from curriculum development, and in how willing they were to direct and prescribe a particular pedagogical approach. At TechU, the OPM initiative was explicitly seen as an opportunity to direct particular ideas about best pedagogy in ways which would be challenged by lecturers teaching on campus. Lydia, the academic leader of the initiative, commented on her previous attempts to push for particular pedagogies within her faculty and the challenges faced in relation to that:

> …to actually get everybody in a university to sign up to the same pedagogical model would be a huge thing to do and I was not capable of doing that. […] So even though, and I do love academics and I love academic freedom and I love the notion that people are able to have a certain level of self-expression, but […] there are people within universities that see it as their role to pushback against anything that looks like standardization – 'I'm here to question you'. […] I actually said at a public meeting 'I would like us to buy into social constructivism as underpinning how we believe learning happens best'. And I got tremendous pushback. 'Oh, I don't like that, it's not the way I teach.' (Lydia, Interview 1)

Here Lydia's comments suggest that she sees the use of different forms of teaching as about simple 'self-expression' or individual preference, rather than something which connects with teaching purposes. Lydia later commented in relation to issues with enforcing the alignment-driven approach of the initiative and ensuring all activities scaffolded toward assessment requirements and learning initiatives:

> From our point of view, the more they can pull it back, the more they can centralize control—that sounds terrible but the more there is centralized control and less opportunity for an individual academic to go off somewhere, the better it is for our students and better it is for us because we are actually trying to map a coherent consistent program. (Lydia, Interview 1)

Comparatively, at SandstoneU university leaders Olivia and Kevin made a point of advocating for the importance of academic expertise in teaching in their discipline area and rejected overt approaches to 'unbundle' curriculum content from its teaching:

> I am immediately uncomfortable when people separate content from delivery […] I think there is a role for blended learning [...] but I do not think you want to do that all of the time […] So I am just terribly nervous that when we break down some of those connections […] that the quality of the experience as a learning experience may go down. […] you will often find no interaction between the student and the developer in many online models. And I think that is a little bit problematic and I would think that—I would be concerned about the quality of that course. (Olivia, Interview 1)

> [Regarding the use of other's materials] you have to think carefully about what is happening in that model, particularly with the idea of discipline based academics having a role in teaching and learning in universities where it is not just about content delivery, it is about discipline based academics having an intimate understanding of the discipline and having an understanding of pedagogy and teaching and the combination of those things is incredibly important. […] I think that that starts to raise alarm bells for me. (Kevin, Interview 1)

In these comments, both Olivia and Kevin express concerns about the 'quality' implications of unbundling responsibilities for curriculum development from teaching. This focus on quality and academic expertise is part of the way elite universities such as SandstoneU position themselves against other universities to enhance their competitive advantage. For the SandstoneU university leaders, although lecturers might be too settled in their ways and too 'content-focused' in their delivery, they saw some necessary connection between good pedagogy and the curriculum it was attached to as part of ensuring quality education. Here, the benefits of the new forms were seen in the ways they changed the thinking and practices of particular lecturers who worked with the new form, rather than in the ways the new form might act as an overt governance mechanism.

5.4   Assumptions and Understandings About Curriculum and Knowledge

The justifications for embracing unbundled online initiatives at the two universities were underpinned by particular understandings and assumptions about knowledge (Deng & Luke, 2008). This section considers these dominant understandings and assumptions, pointing to (1) an emphasis on constructivism and active learning, and the framing of knowledge as a process; (2) an emphasis on predefinition and outcomes, and the framing of knowledge as fixed and settled; and (3) an inattention to the relations between curriculum and pedagogy in defining what counts as knowledge. These issues have been flagged in previous discussions of the higher education context and research literature (Chaps. 2–4) and are discussed here in relation to how they emerged within the contexts of SandstoneU and TechU.

Firstly, at both universities there was a strong emphasis on active learning and knowledge construction (i.e. the work done by the learners) as more important than content (i.e. the knowledge base the lecturers bring to the curriculum). This was underpinned by a process-oriented sense of knowledge and an assumption that the 'how' of teaching matters more than the 'what', in similar ways to the literature (e.g.

Barr & Tagg, 1995; Biggs & Tang, 2011; Brown & Adler, 2008). At both universities, there was either an implicit or explicit dichotomizing of constructivist and/or activity-based forms of teaching (seen as best practice), compared with instructivist and transmission-centered forms of teaching (seen as outdated practice). This standpoint is widely evident in critiques of university teaching practices and in calls for universities to improve their teaching practices through stronger use of digital technologies (see Chap. 2).

Within the interviews with the university leaders, these sentiments were most prominently seen in the negative views the university leaders took toward subjects 'overloaded' with content. Kevin, a university leader at SandstoneU, commented on the 'difficulty in reducing the amount of content' and 'the persistent and the never-ending problem of asking lecturers to curtail content into a new curriculum structure' as a key challenge (Kevin, Interview 1). Similarly, in relation to the TechU OPM initiative, Rachel, the learning design manager, described one of her current emphases as 'cognitive loads', meaning:

> …are we giving students too many different ways of having material or information presented at them/to them. Is it sort of all too much, do we need to contain that and rethink the way we do that? (Rachel, Interview 1)

Within the online platforms, the concern with content overload tended to be translated into a numerical issue, that is the numbers of weekly readings, the length and number of videos each week, and the duration of the subject. Although none of the platforms enforced a standardized approach to subject length or weekly content loads from a technological perspective, the need to reduce content was strongly emphasized by management and the platform staff in the directions they gave about curriculum development and the appropriate use of the platform. At TechU, for example, strong directions were given by staff about the number of weekly readings they felt students could cope with. Lecturers developing subjects for the SandstoneU MOOC platform were also advised to keep their weekly videos to under an hour in length and of around ten minutes duration each.

At TechU in particular, university leaders also compared their OPM initiative with the 'poor pedagogy' of mainstream MOOCs. Sarah, for example, expressed concerns with the instructivist or 'transmission model' pedagogy embedded within one of the MOOC platforms TechU had engaged with. She commented:

> They're lectures, you know. […] they're all fine, they are nice little tasters, we are happy with them […] But they're not really a showcase in the way that you would want a MOOC to be a showcase. They are showcasing ideas and knowledge that we have but they are not really... […] it is so much at the opposite end of the spectrum of the very high touch collaborative, engaging process that [the TechU unbundled initiative] take. These are, well transmission model. […] So the knowledge is there and I am happy with it as a showcase. All that my criticism of it is [in relation to] the pedagogical approach. And it could be a showcase for what the kind of knowledge you might get if you came on campus. It's just not a showcase for the way we teach, the highly personalised high touch educational process. […] I'm not saying they have not done what they have done well but their pedagogy stinks, there is nothing in there. (Sarah, Interview 1)

Here, Sarah suggests that there is nothing of value in a didactic 'transmission model' pedagogy and that in the absence of collaborative, 'engaging' pedagogies, there is nothing left of teachable value. The value of the knowledge here is in the process and not in the content or the substance of what is being taught.

In general, the university leaders and policy materials tended to focus on process at the expense of content in their assumptions about what counts as knowledge in line with arguments suggesting that how students learn is more important than what they are taught (e.g. Brown & Adler, 2008). They were concerned with encouraging or ensuring content was reduced across the unbundled online subjects and positioned so-called 'instructivist' approaches in negative terms, instead promoting approaches centered on 'constructivism', interaction, or 'active learning'.

At the same time, however, the approach to curriculum tended to focus on predefined content, in ways which positioned curriculum knowledge as fixed and stable. Across the different platforms, all subject materials, including pre-recorded video lectures, activities, discussion questions, additional explanatory material, and assessment tasks, were expected to be developed in full prior to the teaching period. This predefinition was framed as a key benefit by the university leaders in encouraging an alignment-driven, outcomes-based approach to curriculum design. Across the two universities, subject design was seen to ideally start with learning outcomes and assessment tied to those outcomes, with the rest of the subject mapped back to build toward that.

This attention to alignment, predefinition, and fixity accords with a 'curriculum-as-product' (Barnett & Coate, 2005; Coate, 2009) or 'curriculum as prescription' (Goodson, 2008) approach, which positions core curriculum knowledge as stable and unproblematic (see Chap. 2). Within the interviews with the university leaders, there was little acknowledgment of the difficulties involved in curriculum development or curriculum construction, and their comments promoting learning outcomes tended to suggest those outcomes could be understood as settled and easily defined. The problem was identified as supporting lecturers to start with the outcomes first, with little sense of the complexity which might be involved in that or the challenges of defining clear learning outcomes where those outcomes might be multiple, contradictory, or open. There was little sense of these determinations as contentious or difficult—the flow from learning outcomes to assessment to learning activities to content was seen as fluid and easily defined.

University leaders also gave the impression that they saw curriculum content as fixed and stable in the ways in which they assumed the substance of curriculum required little change between different iterations and cohorts of students. At SandstoneU, the emphasis on using MOOC materials to flip the classroom and the minimal attention to workload constraints in reconfiguring current subjects as MOOCs suggested that the curriculum was not intended to be substantially reworked. This appeared to be the case for both the development of a MOOC from a current on-campus offering for online delivery, as well as the use of MOOC materials within on-campus teaching. The MOOCs model, particularly in the form it took at SandstoneU, was also driven by the idea that subjects would continue to 'run themselves' after the first period of development with little need for change.

For the TechU OPM initiative, curriculum was likewise expected to change little between cohorts, with lecturers expected to work with the initiative's staff at the first point of development but be only minimally involved in the monitoring of the subject. Additionally, the staff working in the TechU OPM initiative were resistant to change and tended to view it as a matter of academic preference with no direct bearing on the subject itself. Lydia, the university leader responsible for the initiative, commented that she was very against lecturers changing parts of their content if this did not affect the stated learning outcomes of the subject:

> …one of our problems is academics change things all the time. They think 'oh I am not going to do that assessment anymore it did not work, I am going to do this one', because what they do not necessarily get is changing an assessment from an essay in week six back to a test in week four completely changes how we have designed the unit because we have scaffolded the students through a whole lot of activities to develop what they need to be able to do to write that essay into week six and now it is not there anymore. […] 'Do you realise what that means to us, we have to go back to the drawing board for that whole unit and you have not changed the learning outcomes?' […] And to be honest if the learning outcomes have not changed, we should not have to change. And so that is the kind of conversation we are having more and more. (Lydia, Interview 1)

Here, the idea that curriculum might be iterative or constantly in flux was a source of frustration for management, adding to workloads and wasting time rather than resulting in any meaningful improvement. For Lydia, the consistency and coherence of the subject and its scaffolding toward the predetermined outcome was seen as more important than the kinds of changes to content or assessment which might impinge on that regardless of the improvements to the subject they might provide.

Across the two universities then, there was a strong sense at the university policy level that what constitutes curriculum is a fixed and stable construction, captured within curriculum materials in a static and defined way, rather than constituted and changed within the moment of teaching or underpinned by a difficult and contentious process of decision-making and potential compromise (cf. Karseth, 2006).

In addition to being fixed and stable long term, the content and purpose of curriculum was also assumed to be unchallenged by being remade for new platforms or initiatives, despite the new pedagogies they brought, the new attention to 'curriculum alignment' they encouraged, and the modularized subject structure they required. The curriculum itself was generally not understood as reconfigured by this process but was presented as relatively stable, in opposition to Bernstein (1976) and Biesta's (2010) arguments about the complex relations between curriculum and pedagogy and between the 'means' used in education and the 'ends' or outcomes produced as a result (see Chap. 3).

In one interview with Kevin, a university leader at SandstoneU, for example, he talked about the challenge of asking lecturers to reduce their content for online learning in ways which suggested content concerns were disconnected from the wider intent of the subject:

> It [the challenge of reducing content] is partly that thing of lecturers finding it difficult to break up what is, for them, a coherent course, a coherent sort of way of thinking about a particular discipline area, for a particular piece of the puzzle in their discipline area and

working out the narrative and the story associated with that and then finding it difficult to disrupt that narrative and story. So that is a classic curriculum design issue. And you see it often when people move from fairly traditional curriculum structures to inquiry based curriculum structures where people have to kill off their babies, they have got to lose parts of the curriculum content that they hold very dear, that suddenly they can only have one asthma case in the problem of the weeks and they usually have fourteen. (Kevin, Interview 1)

In this description, rearticulating the curriculum into the new form is about 'curtailing content' but this is not seen as transformative for the content itself or the intent of the subject, but in breaking up a seemingly superfluous 'narrative', and losing superfluous examples. The issue of avoiding too much content is seen as straightforward, with the core of a subject as something easily distilled, and with over-wordy explanations easily refined and clarified and additional examples edited out.

Similarly, in relation to the TechU OPM initiative, Rachel, the learning design manager, commented on the need to rethink subject design in relation to the amount of content, but, like Kevin, she did not see rethinking of this kind as transforming what matters or counts within a subject. Rachel clarified that looking at the subjects from this perspective was part of a broader process of continuous feedback employed by the learning design team but that this did not change the content of a subject:

We would change the [subject] based on the feedback so different ways of using the online and the educational technologies to engage students. And we would also be looking at different ways or using technologies to help the learner, so to really encourage the learning. It might be the creation of new videos or little audios or whatever, so the changes we are making, it is still exactly the same content, it's still exactly the same assessments but it is continuous improvement and responding to the feedback […]. And if feedback from students says something like—well regular feedback we get is 'way too much reading', we would go in and just go, let us delete all of those and just keep two readings, we would actually consult with the academic and say well the feedback is that there are way too many readings, which ones are the seminal ones that we can keep, which ones can we set aside or delete or maybe put somewhere else as additional readings. It's not changing the content, so the content will still be the same and the things that we would change though are that the model is sort of weekly activities. So we develop those activities, if they are not working or the discussion has not happened, the students are not interacting as much as we thought, we would re-jig that activity but it would still have the same purpose that sort of met with the scaffolding towards an assessment. So we would not just sort of take things off track. Yeah it's still the same intent of the unit. (Rachel, Interview 1)

Here, reworking the content in ways which changed how it is presented or in ways which reduced the overall amount of content was not seen to change 'the intent of the unit', so long as the outcome of the subject and the progression toward that outcome remains stable.

As indicated above, there were differences in how the relations between curriculum and pedagogy were seen at the two universities. At SandstoneU, university leaders purported to appreciate the importance of lecturers' pedagogical role and their 'understanding of pedagogy and teaching' in combination with their intimate understanding of their discipline' (Kevin, Interview 1). However, this understanding of the relations between curriculum and pedagogy as important within an individual lecturer's practice does not appear to have translated into an understanding of the new initiatives and their different pedagogical forms as potentially transforming the

substance of a curriculum. In other words, although the relations between curriculum and pedagogy were acknowledged as important at the level of individual practice, they were not seen as significant at a systematic or structural level.

Similarly, the attention to outcomes and alignment was not seen to comprise rethinking the purpose of a program (except insofar as that purpose should be about building toward a particular outcome) but was about rethinking how that program can be better presented in ways which would appeal to students and encourage deeper engagement in their learning. The introduction of learning outcomes was not seen by those driving the policy initiatives as about introducing new purposes, but about pinpointing what was already embedded in less explicit ways within a particular subject. In other words, the online form was not seen by them to change the kinds of emphasis in place or not in place in relation to purpose but to strengthen and bring out what was already present. Here, there was little acknowledgment of the difficulties involved in curriculum development or curriculum construction. The problem was identified as supporting lecturers to start with the outcomes first, with little sense of the complexity which might be involved in that or the challenges of defining clear learning outcomes where those outcomes might be multiple or contradictory. There was little sense of these determinations as contentious or difficult—the flow from learning outcomes to assessment to learning activities to content was seen as fluid and easily defined.

At both universities, the potential for a new approach to transform the core substance of the curriculum, beyond the loss of expendable content, was not raised as a possibility in any of the interviews or policy materials. The changes the university leaders expected to occur in moving subjects online were significant (in encouraging alignment and active learning approaches). However, they did not see these as transforming the actual content and purposes of the subjects in any meaningful way. The new approaches here were seen to refine or pinpoint what matters, rather than transform that in ways which that might reconfigure the knowledge field and what is represented as important within the curriculum. The reduction of content was only seen in relation to concerns about student motivation and engagement and was not seen by the university leaders as affecting the broader purpose or outcome of the subject in any way.

5.5 Conclusion

The justifications for embracing new unbundled online initiatives at the senior levels of SandstoneU and TechU and the meanings and assumptions about curriculum and knowledge evident in relation to this point to the tensions and contradictions manifest in how unbundled initiatives are being positioned and understood at the university level. Leaders at both universities saw unbundled online initiatives as opportunities for changing teaching practices, although their perspectives about the importance of academic expertise differed. There was a more dismissive orientation to academic expertise at the vocationally oriented university (TechU) than at the

Sandstone institution. At TechU, there was an explicit strategy to centralize control, push past and around notions of academic freedom and autonomy, and to standardize teaching. Academics were required to develop subject materials in collaboration with professional 'e-learning designers' according to a defined model, and students were then supported in their engagement with those materials by externally employed tutors. The academic role was constructed as being about content delivery only, set within strict predefined parameters. At SandstoneU, the institutional leaders did not try to unbundle content and delivery in the same way, yet the forms of online delivery they promoted still diminished and reframed academic responsibilities in respect to pedagogy.

Despite their diversity, leaders at both universities held similar views about what good teaching looks like. In line with some of the wider emphases evident in the literature on university teaching, they underlined the importance of constructivist and active learning pedagogies on the one hand, and outcomes-based approaches to curriculum development on the other. There was a strong emphasis on active learning and knowledge construction (i.e. the work done by the learners) as being more important than content (i.e. the knowledge base the lecturers bring to the curriculum). This rhetoric was concerned with students' own knowledge constructions and the process of their knowledge development. At the same time, in setting up mechanisms which require the curriculum content to be developed in advance and essentially left unchanged during the program as well as in later iterations, the university leaders' practices implied a view of this knowledge as able to be fixed and predefined. These two concepts (of knowledge as about process and student construction, and knowledge as fixed and predefined) are inherently in some tension, raising questions about the ways unbundled online initiatives are conceived. These issues are taken up further in Chaps. 8 and 9, following discussion of the cases of particular subjects developed under the unbundled online initiatives in Chaps. 6 and 7.

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Chapter 6
Developing Unbundled Online Subjects at SandstoneU

6.1 Introduction

This chapter discusses the development of three case study subjects developed for unbundled online initiatives at an elite research-intensive university (referred to as 'SandstoneU'), where the lecturers had fairly high levels of autonomy over their curriculum work. These subjects include two MOOCs, one located within a science discipline (referred to as 'Behavioral Ecology'), one within an interdisciplinary field (referred to as 'Interdisciplinary Logic'), and one humanities subject (referred to as 'Classical Studies') offered via an OPM partnership arrangement. The discussion focuses on the aims, priorities, and experiences of the lecturers responsible for redeveloping the particular subjects and how they designed and justified their curriculum, guided by understandings of curriculum discussed in Chap. 3. For each subject, it includes an outline of the context of development, the lecturers' aims for the new subject, the subject structure and content delivery design, the approach to activities and discussion, the assessment design, and the lecturers' general perspectives on the delivery model. The chapter draws on curriculum documents and interviews with subject lecturers conducted as part of the research project in 2012–2014. All lecturers and subjects are referred to by pseudonym and a full list of the kinds of documents collected and the interviews held as part of this research project is provided in the appendix. The discussion of each case highlights the challenges the unbundled form raised despite the lecturers' autonomy over their work. It also demonstrates the complex thinking that underpins curriculum work, and how the lecturers sought to use the new platforms in ways which aligned with their overall understandings of what matters educationally, both in general and within their particular disciplines.

6.2   Case 1: Behavioral Ecology, MOOC Initiative

Behavioral Ecology was developed and offered as a MOOC in 2013. It was one of the first round of MOOCs offered by SandstoneU via its MOOC partnership arrangements. Like most mainstream MOOCs, the MOOC platform teaching model was one primarily restricted to video lectures, online quizzes, and student-directed discussion forums. The content was delivered via video lectures over weekly time frames and students could discuss the content among themselves via student-initiated discussion forums before being tested on their knowledge of that content via weekly quizzes. Although the lecturers had autonomy in content selection at SandstoneU, the format of the MOOC videos tended to be highly scripted. The videos were typically filmed within a studio, with the academic presenter reading from the text of their script against a backdrop of aligned PowerPoint slides.

Two lecturers, Matt and Ethan, were responsible for developing the Behavioral Ecology MOOC. Matt has won a number of university awards for innovation in teaching and was approached by university leadership and asked to develop a MOOC along with other recent awardees. Matt selected his third-year Behavioral Ecology subject and asked Ethan as the subject's co-coordinator to work with him on its redevelopment. Matt and Ethan were both senior academics within the university's zoology department. Ethan was already professor and Matt was appointed professor following the development of this MOOC. While they identified their research fields somewhat differently—Matt as behavioral ecology and Ethan as evolutionary biology—both agreed their research interests and understanding of their field were very much aligned.

The subject from which the MOOC derived was a third-year subject taken as an elective component of the zoology major and the ecology and evolutionary biology major in the Bachelor of Science. The subject was a lecture-only subject that was taken in tandem with a co-requisite practical subject where students undertook independent research in allocated groups. It had high-level prerequisites that ensured students were familiar with important concepts prior to study, including evolution, natural selection, and the basics of experimental design. The subject comprised 30 lectures which were scheduled twice or thrice weekly across the semester. Its assessment included a two-hour theory exam and a one-thousand-word piece in the style of a news article which required students to rewrite the findings of a scientific article in the form of an accessible, popularized account. The exam questions asked students to interpret data from a real research article and answer questions about the implications of the study, why it might have been approached in that particular way and what other methods researchers could have used. The second assessment was intended to develop scientific communication skills and included a process of peer review whereby students received feedback from each other on their drafts before being assessed by the subject coordinators. Since taking over the subject, Matt and Ethan had substantially reframed the assessments to support the development of generic skills and moved away from an exam approach, which they felt focused too strongly on rote testing of content knowledge.

Matt and Ethan identified their primary aims for the subject as helping students to develop an understanding of their field and how it operates, and 'the nature of the science' that sits behind the findings (Ethan, Interview 3). In contrast to some critiques of MOOCs (e.g. Bates, 2019; Rhoads et al., 2013), they were not simply concerned with providing students with abstracted content or with asking them to rote learn key concepts, but instead wanted students to understand the broader picture and the agreed boundaries, rules and ways of practicing within their research field. Ethan commented that the MOOC was about 'not just knowledge but […] also how that knowledge is acquired' (i.e. the structure of knowledge and the norms of the field) (Ethan, Interview 1).

On the subject website, the Behavioral Ecology MOOC objectives were identified as:

> …[to] understand how researchers use scientific logic to approach answering questions, and begin to ask your own questions about animal behaviour; explain the difference between ultimate and proximate; explain the processes of natural and sexual selection and how they shape animal behaviour; understand theoretical concepts such as competition for resources, altruism, kin selection, parental care, and sexual and family conflict in light of Darwin's theory of evolution; and critically assess competing theories and alternative hypotheses and suggest how they might be tested experimentally.

These objectives are about providing students with a sense of what the field is about and how knowledge is applied within it. The MOOC was here not positioned as 'packaged' or 'reified' (Rhoads et al., 2013) knowledge, but instead as a subject designed to engage students within a disciplinary framework and provide them with opportunities to participate in disciplinary conversations.

When asked why they wanted to develop their particular MOOC, both Matt and Ethan emphasized their desires for the broader public to appreciate the research base behind popular natural history documentaries. Matt commented that he chose to develop his subject into a MOOC because he felt there was huge interest in the subject matter, but not enough understanding of the science that supports those understandings, with people walking away from natural history documentaries 'assuming that the BBC discovers all of these things, when in fact of course all of these programs are summarizing and relating stories that have come out of individual research projects'. He commented that he 'wanted to give people a chance to learn a bit more about the research behind those discoveries and to just understand a little bit more about how animal behavior research is conducted' (Matt, Interview 1).

In the interviews, Matt and Ethan also spoke about their broader teaching practices and discussed the ways in which they have previously reconfigured assessments to better reflect their own views about what good learning looks like. These changes—which involved incorporating student peer review of essay drafts and reframing exam questions toward interpreting raw data—were about acknowledging the importance of students' own meaning-making practices in their learning. Both lecturers saw real value in connecting with students' own understandings to ensure students actively engaged with the substance of what was being taught, rather than simply recalling lecture content. Ethan, for example, commented that he was interested in experimenting later with a flipped classroom model (see Bergmann & Sams, 2012), where

students would be asked to watch video lectures prior to class and then engage in activities relating to those lectures. He noted this was because it 'doesn't give the students the option of just sitting at the back of the class and passively absorbing stuff' (Ethan, Interview 4). The thinking evident here shows how Matt and Ethan valued students' own interactions and knowledge constructions and sought to emphasize and create space for this in their teaching.

The structure of the MOOC was taken directly from the on-campus subject. However, there was some reduction in the breadth of topics covered in the on-campus subject before the MOOC development began with the broader aims of the MOOC in mind. Matt and Ethan redeveloped all 30 lectures for the subject as MOOC videos and incorporated additional introductory videos to help students better understand the field and concepts such as evolutionary processes and natural selection. In our first interview, Ethan commented:

> We've added some introductory lectures into the structure of the [MOOC] where we just reiterate some of the bits of basic knowledge that we think students should be aware of and they're mainly around evolutionary processes, natural selection and so forth. And we try and take the opportunity within lectures to just add a little bit of background or refer students to additional resources where they can learn more if they need to. (Ethan, Interview 1)

The MOOC videos followed the same format as the on-campus lectures but with less repetition and examples. Matt and Ethan made a point of designing each video around one or two key points, splitting or refining videos where they felt there was too much content. These key points were then summarized on the final slide and emphasized as the key message students were expected to take away from the lecture. Given the open audience of the MOOC, the content was re-pitched at first-year level, but still comprised third-year level content. Matt and Ethan originally planned for a 6-week long subject but chose to expand the subject length to eight weeks while completing the video filming as they wanted to reduce the weekly video load.

Matt and Ethan were concerned with providing a sense of their research field within the subject, including in relation to the kinds of research that is done and what is valuable about that. They also both emphasized their desires for the broader public to appreciate the research base behind popular documentaries as a driver behind their MOOC. In their MOOC lecture videos, they attempted to give students a sense of the science behind the research and the ways particular claims had been reasoned and proven rather than just tell students the outcomes of research findings. They included references to authentic research projects and the findings of those projects in their videos. In Ethan's words, the approach was about showing students 'there's some science behind it', rather than 'simply telling a story' (Ethan, Interview 3). Matt commented that what set the MOOC apart from BBC natural history documentaries was the focus on the research studies themselves, which meant the approach was not about taking content at face value but:

> …saying, 'okay, what are the arguments, what are the alternative possibilities, how did they arrive at this particular conclusion rather than another conclusion' […] [Within the MOOC] we try and take a critical approach to looking at studies that we are analyzing. So if there's

a flaw in the study or there's a problem with it then we try and discuss that. So I think we do want to sort of encourage critical thinking and a skeptical view about whether or not things represent good evidence or bad evidence. (Matt, Interview 1)

Matt and Ethan also devoted significant space and time in the subject to explaining the rules and norms of their field, including a video lecture dedicated to the kinds of questions that are answerable from a biological research perspective. According to Ethan, this lecture was 'technically important for the discipline' because it covered the differences between evolutionary explanations, causative explanations, and learning explanations. Matt similarly noted that in the later lectures, 'almost all the studies that we will then be talking about do one or other of those things [described in this lecture], they use observational information to test an idea, they'll do an experiment to test an idea or they will use comparative data to try and test an idea' (Matt, Interview 1). The lecture covers the kinds of questions which can be asked by the discipline and can be tested experimentally, and those that cannot be answered scientifically through experimental studies. In this video, Ethan argued that some questions about animals can be answered by biological research, and some cannot, and that within the context of research the only kinds of questions which should be asked are those which can be tested scientifically through experimentation. By insisting on the importance of the 'Asking Questions' lecture, Matt and Ethan were concerned with engaging students within the disciplinary frame and inviting them to participate in disciplinary conversations.

One aspect often associated with scientific forms of disciplinarity is hierarchical knowledge structure (see Bernstein, 1996; Muller, 2009). For Behavioral Ecology, Matt and Ethan spoke about the variance in students' prior knowledge as a challenge, given the importance of sequence (i.e. what knowledge is introduced at various stages of study) within their field. In relation to the differences between the MOOC and the on-campus subject, Matt commented, 'we know that we've got a completely different audience; for our third-year students, those students have done prerequisites at second year, at the university, we know their level of preparation, we know their level of understanding of concepts like ecology, that's not true for our [MOOC]' (Ethan, Interview 3). In response, Matt and Ethan decided to align the content with the third-year subject, but in a way which made that content more accessible to the students. Matt noted, 'we try and introduce them to topics gently but we're not afraid to sort of discuss some trickier complex concepts. So it's almost like it's taking them from first to third year in some lectures, very quickly' (Ethan, Interview 3). In redeveloping the material for the modularized MOOC form, Matt and Ethan elected not to downplay the disciplinary approach, but instead to reinforce this and make it more explicit. Here, the approach maintained conceptual coherence by accounting for the hierarchical structure of the knowledge field.

Matt and Ethan also wanted students to understand and appreciate that the knowledge being taught was not fixed but evolving and subject to debate. In Ethan's 'Asking Questions' lecture, he pointed to the complexities of what constitutes research and that one of the issues raised within the field is the way different types of questions generate different kinds of answers. Ethan argued that four kinds of questions are

evident in the field, which focus on (1) development, (2) causation, (3) evolutionary history, and (4) survival value, and that an important aspect of research in the field is about distinguishing between these different forms of explanations. Based on the four questions, Ethan explained that the question of 'why do bowerbirds pay so much more attention to building, renovating and decorating their bowers in spring-time?' might be answered according to those alternate frames as (1) that the hours of daylight increase trigger changes in hormones; (2) to attract females for breeding; (3) that complex bowers may have evolved from more simple constructions built by ancestors; and (4) that males have learned the behavior from parents or neighbors. Within this video, Ethan set up parameters for the kinds of questions which should be engaged with, drawing attention to areas of potential contestation within the field.

Matt commented in relation to this lecture that he and Ethan had a good sense of what questions can and cannot be answered, but that he felt 'in the dialogue with students there's an opportunity for broader conversation about that' in sharing their own understandings (Matt, Interview 2). However, Ethan also noted that in aiming to 'make the concepts as accessible as possible' within the MOOC, he and Matt limited 'the level of ambiguity or uncertainty that is what makes third-year teaching much more interesting than first year teaching' (Ethan, Interview 3).

Both Matt and Ethan scripted their lectures, which they found labor intensive but necessary in terms of ensuring the videos remained under the allocated length. Matt noted that 'writing the scripts is very time consuming but there's something satisfying about saying what you want to say in the most economical efficient way and also not wanting to forget things'. He advised that in terms of breaking up the content, 'I've found that there are sort of natural ways of which I can break up some of the material so you know there's one topic that I teach during one lecture that I split into three smaller lectures because they're sensible bite size chunks' (Matt, Interview 2). He noted that, 'I haven't had any concept where I felt like this is really, really hard to get across in this amount of time or in this way', and although he found the first videos 'excruciating', he found the process 'more and more enjoyable' as he continued (Matt, Interview 2).

The MOOC was also developed to include 'researcher meets' (via Google Hang-outs) with different experts where students could ask questions and discuss the subject material. The original plan was to offer one per week but Matt and Ethan decided this was too much and ended up organizing a total of three in the final four weeks of the subject. These sessions enabled students to engage with and ask questions of prominent researchers within the field via online conferencing technologies.

Alongside the videos, the MOOC also offered opportunities for the students to engage with each other and ask questions via online discussion forums. These forums were the dominant ways in which students could interact with each other within the MOOC platform (although some did engage via Facebook sites and the like). The discussions were student-led, with the students initiating their own discussion threads and responding to each other with only minimal input from lecturers and teaching assistants. They were therefore not an element which the lecturers could plan for or direct in any detail. For the most part, Matt and Ethan saw the discussion forums in positive terms and appreciated the learning opportunities that they provided beyond

the video lectures and assessments. Matt emphasized the value of the forums and the high level of engagement shown by students, noting 'it's humbling to see the high level, the intellectual level of debate that goes on among them' (Matt, Interview 3). He saw this as particularly impressive because the discussion boards offered via the university learning management system tend to be ignored by on-campus students. In contrast, the MOOC forums encouraged learning by allowing students to express their own interpretations of the content. In Matt's third interview, which occurred about halfway through the MOOC teaching, he commented:

> I think as the instructor you've got to resist the temptation to step in and provide the definitive answer because I think you're going to discourage learning that way. […] I'm wary of posting something that will kill off the discussion because people go 'oh the instructor posted this and so therefore my view must be wrong or invalid.' (Matt, Interview 3)

Matt noted that he really liked the 'generally cooperative way in which people did things and the way that someone would pose a question and other people would take the time to answer it and often give a really good answer' (Matt, Interview 3). Ethan also noted that 'you do find that people say, "I didn't really understand this" and then they will get a string of responses and typically those responses will be on the mark' (Ethan, Interview 3).

Matt also commented in relation to the Behavioral Ecology MOOC that, while there were 'plenty of posts where people are a little bit off the mark or a bit left of field, he also 'saw a lot of people there where I thought these people could be great potential community TAs [teaching assistants], they really understand the material well, lots of insightful posts' (Matt, Interview 4). Matt and Ethan also employed a teaching assistant to monitor student discussion as much as possible and although they did not engage with every post, they did ensure their teaching assistant either responded to 'genuine posts that are saying there's something unclear' (Ethan, Interview 3), or alerted the lecturers to the need to do so. Matt and Ethan relied on the students to respond to queries in the first instance, but then had the teaching assistants explain further where those responses were incorrect. These responses show that while the lecturers valued the ways in which the forums provided space for going beyond the video lectures, they also tended to primarily position them as an additional space for students to clarify what was said in those videos.

The lecturers' interview comments also highlighted their emphasis on the importance of keeping discussions within the boundaries and parameters of their disciplines and fields, rather than bringing in concerns that are outside of that. While the lecturers did want students actively constructing and engaging with the concepts taught, they saw boundaries as important in terms of what was valuable and had defined ideas about what discussion looked like that was on track or 'off the mark'. An example of students going outside disciplinary boundaries in the forum discussions occurred in one incident where Matt and Ethan indicated some concerns about the ways students had responded to Ethan's introductory lecture on 'Asking Questions'. They had intended that this lecture would specifically draw attention to disciplinary boundaries in defining what discussions were appropriate and worthwhile. In this lecture, Ethan had explicitly made the point that asking whether animals experience happiness

is not a question that can be answered within ecological or biological research and expresses anthropomorphism (attributing human characteristics to animals). When he went to develop the quiz questions for this lecture Ethan wanted to deal with the issue of anthropomorphism in an interesting way so he referred to a recent book by Australian author Tim Winton, where the central character pondered about what fish think. One quiz question asked why this issue cannot be resolved. The correct answer within the quiz was that, from the perspective of the discipline, fish do not think because human characteristics cannot be ascribed to animals and whether fish think is not empirically testable. However, the question led to heavy debate within the forums about whether animals think or not, much of which focused on students' relationships with their pets and whether their pet loved them back. This issue was one of the most dominant discussions in the forums and developed across numerous threads. Ethan in particular found these responses extremely challenging and posted multiple times in the discussion forums to try and direct the students back to discussions he felt were relevant to the subject. However, he found that students would simply start the discussion again within another forum thread and that his comments tended to not be effective in refocusing the students to approach the content within rather than outside the disciplinary frame. Matt and Ethan's struggles here highlight their emphasis on the discipline as the defining boundary as to what is appropriate in the forum discussions.

The issue of disciplinary boundaries raised here also points to the challenges of not being able to respond appropriately and correct students' inappropriate responses in a platform which has little lecturer control. In relation to the issue, Ethan commented:

> …it's very frustrating to be in an environment in which we're trying to teach something about the science of animal behavior and yet the most dominant issue that the students are struggling with—and of course they are struggling because it's impossible to answer—is essentially non-scientific. It's a sense of frustration. You think well, hang on, I'm not cutting through here at all. What can I do to cut through? (Ethan, Interview 3)

Here, the multiplying nature of the forum threads and the ways problematic discussions emerged in various places presented significant constraints to Ethan's ability to redirect the student discussions. These issues may derive from problems with the way Ethan framed a particular question, and potentially his and Matt's inexperience with online teaching in general. However, off-topic discussions also point to the ways in which the uncontrolled space of the forums could be problematic and adversely impact the curriculum intents of the subject. Thus, while the openness of these forums allowed students to debate and take up the content delivered in any way they pleased, drawing on their prior experiences and knowledge, it also did not provide any surety that these discussions would proceed in ways which connected students' own contributions productively with the curriculum content.

Students were assessed using multiple-choice weekly quizzes and a final peer review writing task. In taking up the option of multiple-choice assessments, Matt and Ethan elected to allow students to check their understanding and receive feedback on their responses before proceeding to the final tests, providing students with multiple attempts to complete each test and providing detailed automated feedback about

where they had gone wrong. They wrote multiple versions of questions around the same concept so that students were not able to simply memorize the correct answers. Matt commented that this was:

> …about that deeper learning that comes from being able to get the question right regardless of how it's served up. And so, we've put a lot of effort into writing feedback on the quiz questions so that when you get it wrong there's actually quite a lot of information there that helps you understand why you got it wrong. So it hopefully helps you to do better the next time. (Matt, Interview 3)

However, he also noted that the multiple-choice format meant changes for the ways in which he usually approached examination questions, which comprised questions which asked students to really consider and critique real research and required 'quite open-ended answers' (Matt, Interview 2).

The second assessment was modeled on the written component of the on-campus assessment and required students to develop a popularized account of a scientific paper which would be assessed by their peers. The task was set at the same length as the on-campus task (1000 words), and the peer review was done by a rubric modeled on the on-campus rubric but was less detailed and nuanced. This rubric included ten criteria, including the following examples:

Did the article have a short and informative title?
1. 0- No. The title had more than 12 words, and the title was also not clearly informative about the article.
2. 1- The title was too long (more than 12 words), or it was not clearly informative about the article.
3. 2- Yes. The title had fewer than 12 words and was informative about the contents of the article.

Did the article clearly explain the purpose of the study, i.e. the question the researchers were trying to answer?

1. 0- The purpose of the study was not explained.
2. 1- The purpose of the study was explained, but this explanation revealed some misunderstanding of the source paper.
3. 2- The purpose of the study was clearly and accurately described.

Did the author clearly and concisely explain what approach (methods) the researchers used to answer their research question, and describe the key findings of the study?

1. 0- Neither the methods, nor the findings were described.
2. 1- The article described the methods, but didn't describe the key findings (or vice-versa).
3. 2- A clear, accurate and concise description of the relevant methods and findings was given.

In contrast to the on-campus task, these criteria and the scoring rubric were detailed, explicit, and left limited room for student judgment. It was left up to students to determine what counts as an 'informative' title or an 'accurate' description of the

study purpose, methods, and findings, but the rest of what they were asked to assess was clearly defined. This left out how well students captured the substantive parts of they were asked to do, rather than simply elements of that. These attempts to codify criteria for the purposes of peer assessment raise the question of whether this led to measuring what can be measured, rather than what was educationally desirable or valued (Biesta, 2010). The emphasis was on a set definition of what counts, rather than taking seriously how students might interpret that and what they might bring to the task in both their own approach and their judgments of others' work. More importantly, in defining the assessment task by criteria which could be easily and consistently graded by students, the task itself was changed from one which might have allowed for a range of possibilities in terms of student responses to one which was templated and potentially superficial.

In total, over 45,000 students enrolled in the Behavioral Ecology MOOC. More than 25,000 of those engaged with the materials and almost 1500 completed the assessments. Matt and Ethan were happy overall with the outcome of their MOOC, but also overwhelmed by the process. Ethan maintained a negative view of MOOCs as a teaching model overall. He saw benefits in developing the MOOC in that the process of redoing the lectures helped him think more specifically about sequencing and what is emphasized. However, he also worried about the packaged nature of MOOC lectures and did not like delivering material in an environment where he was not able to read his audience and respond accordingly. He commented that while in an on-campus lecture he might explain a concept in 'three or four different ways', that was not possible for the videos developed for a MOOC since 'the students scrutinize everything' (Ethan, Interview 3). He commented that 'packaging [lectures] up as smaller units' is useful for time-poor students, but 'the question you have to ask then is, is this really engaging in the subject as richly and deeply as you might expect or are we actually simply providing a fairly superficial account?' (Ethan, Interview 1). Matt and Ethan were provided with funding to develop the MOOC but were not able to use this to buy-out other teaching responsibilities and hence found the volume of work required to prepare the MOOC materials a considerable burden. At one point, including his time and the time of support staff, Matt estimated that 'with copyright, planning, structuring, writing, you know there is two days of effort for every fifteen-minute lecture of which there are forty' (Matt, Interview 3).

Overall, this case demonstrates the complexity of thinking which underpins curriculum work. It highlights the centrality of the discipline in Matt and Ethan's decision-making as well as their commitment to authentic student engagement and scientific debate over simple transmission of content. In contrast to arguments MOOCs simply reify knowledge (Rhoads et al., 2013), these lecturers aimed to provide students with not just knowledge about their field but the chance to participate in disciplinary conversations. Yet the case also demonstrates the challenges of realizing these aims within the unbundled context of the MOOC, where the opportunities to engage with students about their own ideas and connect these to the knowledge base of the subject are limited.

6.3 Case 2: Interdisciplinary Logic, MOOC Initiative

Interdisciplinary Logic was developed as part of a second group of MOOC offerings for the SandstoneU MOOC initiative and was offered via two MOOCs in the first half of 2014. The lecturers responsible for the subject, Rod and Debra, had originally planned to offer one MOOC, but were interested in running the MOOC in parallel with their on-campus teaching and, on advice from the learning design team managing the partnership, elected to split their subject into two MOOCs: one five-week subject on propositional logic and its applications, and one eight-week subject on predicate logic and its applications.

Rod and Debra were longstanding friends and colleagues with interests in logic and its cross-disciplinary applications in their disciplines. Rod was a professor of philosophy in the Faculty of Arts whose first degree was in mathematics and statistics. Debra was a lecturer in the Faculty of Engineering with degrees in mathematics, philosophy, and computer science. Both identified as 'logicians' but also in relation to their wider disciplinary associations (as a philosopher in Rod's case and an applied mathematician in Debra's).

The Interdisciplinary Logic MOOCs were derived from an existing first-year subject available to any student completing an undergraduate degree. This subject was introduced in 2008 as part of a suite of interdisciplinary subjects (defined by the university as comprising cross-faculty teaching involvement) which were completed by students to meet a requirement that they take one semester-worth of subjects outside their core degree. Its subject matter was not located around a new problem but constituted a quasi-discipline itself, with agreed concepts and ideas that were traditionally taught across the university within different disciplinary programs. The on-campus subject was led by Rod and Debra but included contributions from a number of other lecturers and incorporated perspectives from philosophy, mathematics, computer sciences, engineering, and linguistics.

The on-campus subject provided an introduction to propositional and predicate logic and their use and application in the discipline areas. It was divided into 'core lectures' in propositional logic, followed by associated application lectures in engineering (digital systems), philosophy (vagueness), and linguistics (meaning); and 'core lectures' in predicate logic, followed by associated application lectures in linguistics (quantifiers), computer science (prolog programming), philosophy (definite descriptions), and mathematics (quantifiers). The subject content developed progressively over the semester, with later concepts building on knowledge of preceding concepts. The assessment for the subject included homework assignments, a mid-semester test, an end-of-semester exam (assessed via multiple-choice and short answer questions), and group workshop projects. The subject's focus on the application of logic across disciplines was innovative and different to many other logic subjects or components where logic is simply taught as a skill for applying elsewhere.

Rod and Debra were interested in experimenting with new teaching practices. Before starting the MOOC, they had experimented with 'flipping' parts of their

lectures by developing low-cost videos on their iPads for students to watch outside of class and using their class time to test students on their knowledge of that material via student response systems such as clickers (an interactive technology which allows lecturers to immediately view student responses to questions). They evaluated the effectiveness of those videos before proceeding with the development of the MOOC videos.

In terms of their aims for the new MOOCs, Rod and Debra wanted students to understand logic as more than 'a bunch of tools' or 'skills that will be used elsewhere' (Rod, Interview 2). Instead, they wanted students to get a sense of the conceptual structures and methods associated with the study of logic, the different fields that use and apply logic knowledge, and the kinds of research approaches and practices that sit behind that. Although the promotional materials for this MOOC discussed the relevance of logic to the modern world, including in relation to digital systems, the focus of the subject was not on what logic offers for understanding the world as a tool but on conveying a broader sense of its orientation as a quasi-discipline that informs other disciplines. There was an emphasis on understanding the conceptual structures and methods associated with the study of logic and its use and application across related disciplines.

Rod and Debra wanted to give students an understanding of the ways in which knowledge is developed and the kinds of understandings that sit behind that, rather than just giving them access to content abstracted from the ways of knowing that underpin it. The emphasis was on understanding the disciplinary ways of knowing that draw on logic, not just logic as an abstracted technique able to be taken up by the students in any way they please. In our first interview, Rod described logic as a quasi-discipline in its own right with its own core content, distinct from the kinds of interdisciplinary fields which locate around particular problems or issues (in relation to climate change for example). This core content is applied in a range of different disciplines, but it has its own knowledge structure, which is hierarchical (Muller, 2009), and aligned with Becher's (1989) conceptualization of a 'hard' field. In line with Muller's (2009) emphasis on conceptual coherence, Rod and Debra were very concerned with the order in which content was provided to students, particularly in terms of the importance of students understanding the concepts underpinning propositional logic before starting predicate logic.

The interdisciplinary nature of logic was also particularly important to how the MOOCs were designed. In our first interview, Debra commented that the point of the on-campus subject and the related MOOCs was 'to try and demonstrate that the same core knowledge of formal logic – first propositional logic and then predicate logic – is used in five different disciplines, and forms an integral foundation to five different disciplines' (Debra, Interview 1). This emphasis was on understanding how logic knowledge 'works', the rules which govern its use, and its application across different knowledge fields. Rod also confirmed that this interdisciplinarity was critical to the purposes of the subject. He commented:

> So there is still going to be that kind of interdisciplinarity in the [MOOC]. That is a crucial thing for us… That is a crucial thing in what it is to learn this at a university level. Because— it's like the difference between learning arithmetic and learning mathematics. You could

learn this as just a bunch of different little skills, which is like often how mathematics is taught in school, we just need you to learn your times and plus tables and everything. And sure there's a space for that. But we want to motivate this by saying, here are lots of different ways of how that's applied. And then we want to evaluate its success on that basis of those things as well. We want to say right […] if this tool gives us this answer, how is this actually an answer to the original question and what was motivating the question. […] We want the students to be able to not only notice that this tool does this well and does this well and does this well, but why it might be and where the limitations of the use of that thing might be and that is a crucial thing which makes something really a university level thing because it allows you to not only get some tools to use but to have the critical expertise to be able to know when a particular tool might be appropriate. And that kind of interdisciplinarity, or at least multidisciplinarity is a crucial thing in the motivation of the subject. (Rod, Interview 1)

Like Matt and Ethan, Rod also strongly emphasized the importance of presenting logic knowledge as not settled (cf. Rhoads et al., 2013) but as an evolving field. He commented:

…there is the sense that often the way that logic is taught in service courses is as a tool or skill, completed science and you go away and use it. And that's not wrong but that's not all there is. So we do want to get people a sense that these are kinds of things that were discovered and invented and this result that we'll be talking about was formulated and understood in the 1950s and before that people did not know this. And so having a sense that these kinds of things are things that we are figuring out, learning. (Rod, Interview 2)

Although they commented on the value of MOOCs in reaching broader audiences, Rod and Debra primarily framed the benefits and purposes of their own MOOC in terms of attracting students who would continue with study in one of the disciplines which employs logic application. Rod also emphasized the value of the MOOC in allowing students taking logic in later year levels to catch up on content they missed through not having taken logic in the first year, describing it as 'less effective but more easily distributed' than actually taking the class—so 'like an enhanced textbook' (Rod, Interview 1). Here, the ideal imagined student taking the MOOC was clearly positioned within a disciplinary trajectory and the resources were seen as valuable because of what they offered for someone developing within a disciplinary framework.

The two MOOCs followed the structure of the on-campus subject as much as possible, with the primary difference being around the structure of the application areas' content and the assessment. Each lecture was developed into a new video and detailed supplementary subject notes were produced, covering the lecture content not able to be included. The two MOOCs included all the disciplinary application areas but allowed students to elect to complete different application areas and be rewarded for those they chose to complete.

Rod and Debra were clear that maintaining all five application areas rather than focusing solely on the core logic content was a key part of what made their MOOCs distinctive. The number of disciplines included within the frame was seen as important and Rod and Debra argued that 'trimming [the discipline offerings] down will diminish it quite substantially' (Debra, Interview 1), because it would give students a more limited sense of how logic is applied and the different forms that it takes. In their

on-campus teaching, Rod and Debra were open to amending their curriculum content in some areas to accord with what students were able to handle, and since introducing the on-campus subject had reduced the mathematics load. However, they did not see content reduction as simply a matter of reducing the examples but as something that would change the aim of the subject. In relation to their decision to offer two MOOCs rather than one, Rod noted:

> …we could have either made the content of our subject not very interesting and more sort of traditional and fitted it all within roughly eight weeks or keeping the content that we think makes it exciting, it sort of naturally splits into a first half and a second half. (Rod, Interview 3)

Rod and Debra both scripted their videos, which was time consuming, but otherwise found the development of the videos 'relatively straightforward' and noted that 'there's no real significant decisions to be made' (Rod, Interview 4) since most of the content had already been developed. Rod saw real benefits in the way the videos made the practices of logic, which 'are kind of tacit' and 'hard to articulate', explicit and enabled students to see logic as something practiced rather than as abstract rules. However, he also commented on the differences between his on-campus style of lecturing, 'which is much more interactive and prone to interruption and much more loose' than the approach he took to the video lectures which was 'to write the script, to practice it, cut things out until you're happy with it' (Rod, Interview 4). He noted that his focus for the videos was more strongly oriented to 'how tight the content can get', in ways that were different from his on-campus approach to lecturing (Rod, Interview 3). Debra similarly commented on the importance of 'being more focused and sharper' in her video lectures, as without that there was the challenge that 'the students can lose the point of what's the most importance thing' (Debra, Interview 2).

In developing their videos, Rod and Debra sought to illustrate the differences between the disciplines which use logic. In the first linguistics lecture in MOOC 1, for example, Rod included a slide which quotes the philosopher David Kaplan as saying:

> Linguists are like vacuum cleaners! Philosophers are like black holes. Philosophers react to every theory by constructing arguments against it. Linguists react to every theory by taking it in and using it to explain some of their millions of examples. (MOOC 1, Lecture 5.1)

In explaining this quote, Rod noted the reflection provided insight into 'how the discipline of linguistics works' and he encouraged students to read another essay by a linguist covering similar ground. Rod commented that the coverage of the different disciplines and fields meant that 'it's like everybody's learning different languages' and that within the subjects they 'make that kind of discomfort a topic for attention' (Rod, Interview 1).

Rod commented that the development of the videos was 'an immensely productive activity for us' as 'we realized 'goodness, we have just been doing this because that's the way we've been doing it for the last couple of years' and we discovered that we didn't really need to do that'. He elaborated:

> And when things were divided up into little bits it was you know, oh my goodness, this kind of thing really occurs over there. If we actually spelled this out a little bit earlier on, then this would actually make things easier here and here and here. And something about dividing things up into individual concept sized pieces rather than lectures made that kind of clearer to us which we wouldn't have noticed otherwise. (Rod, Interview 1)

Here, the process of revisiting the content provided new insights into constructing curriculum from a body of knowledge that he valued.

Rod and Debra also prepared supplementary notes for each video, which Debra observed was helpful in allowing them to isolate the most important elements of their longer lectures and include the rest within notes that might then be able to be developed into a new textbook.

As with the Behavioral Ecology MOOC, both Interdisciplinary Logic MOOCs offered opportunities for students to engage with each other and ask questions via discussion forums. Rod and Debra did not face any of the challenges with these forums encountered in the previous case but likewise saw the use of teaching assistants as important in keeping the discussion on track and correcting misconceptions. They recruited star students from the first MOOC to act as teaching assistants in the second MOOC and Debra commented in relation to these teaching assistants, 'they were actually really good and would answer straight forward pointed type questions, you know, go look in the course notes' (Debra, Interview 4). These teaching assistants were seen by Rod and Debra as pseudo-tutors, with sufficient knowledge and understandings to adequately explain core concepts to students who were struggling and to direct them to further explanations contained in the subject materials.

The assessment was designed to assess student knowledge of the content. The core areas and most of the application areas were assessed via automated multiple-choice questions while the final assessments and the philosophy and linguistics application areas for the first MOOC were assessed via peer review of short answer questions. Like Matt and Ethan, Rod and Debra saw significant value in the way the multiple-choice question format enhanced revision practices and reinforced understandings, and likewise chose to allow students to check their understanding and receive feedback on their responses before proceeding to the final tests. Rod commented:

> …a student can practice with ten of these problems and figure out that okay I've got it all right and they know they've got ten out of ten, and [for] other students still struggling […] [we can] give them feedback on 'no, you made a mistake here, revise this bit.' (Rod, Interview 1)

There was a focus on providing students with clear and explicit direction about what was misunderstood and what the students needed to work on to correct the attempt. Within multiple-choice forms of assessment, right and wrong answers were clearly defined and like Matt and Ethan, Rod and Debra tended to see the benefits of the multiple-choice approach in providing students with opportunities to identify the areas they were struggling with based on the answers given.

Interestingly, this concern with explicitly defined criteria and right/wrong answers was also strongly evident in relation to the peer review assessments, where greater fluidity and space for interpretation might have been expected. The lecturers made the decision to use peer assessments as they felt that there were elements of the content

that could not be assessed by multiple choice. They felt that automated assessment was appropriate and practical for most of the course, but also wanted to include some peer review for the philosophy and linguistics application areas, and for the final task. Debra noted for those areas 'if it's all reduced to multiple choice too much is lost' (Debra, Interview 1).

However, Debra and Rod tended to frame the peer review task not in terms of student interpretation or in terms of the learning that occurred from the process (traditionally how such assessment is justified—see Boud et al., 1999) but in terms of their potential for reliability and validity. In the lead up to the MOOC starting, Debra took another MOOC as a student to learn more about peer assessment and was critical of the lack of clear directions regarding assessing peers' work. Based on this experience, Debra and Rod decided they would develop two rubrics per assessment—one which would explain at a high level how the student's work should be assessed and which would be released at the time of the question, and a second more detailed rubric that would clarify which key concepts needed to be defined and what an acceptable definition would include at various levels from excellent to poor which would be released with the commencement of the peer assessment. This second rubric included an explanation of the key concepts to be included in response to each question and clarified the elements that were part of an excellent definition, compared to an adequate or poor definition. In talking about why explicit rubrics were necessary for peer review teaching, Debra commented:

> Unless you actually tell students what the right answer is or what a right answer is or the parameters under which this counts as a correct answer, I think you'll inevitably get that sort of wild discrepancy. […] for the final marking, you really need the nitty gritty what's right and what's wrong because those judgements cannot be left for students, they don't actually have enough knowledge or too many of them don't. (Debra, Interview 3)

Peer assessment was here not about students' interpretations but about students acting as substitutes for experts, with the knowledge and expertise of those experts reconfigured in written and codified form for students to use. The authority to decide 'what counts' as a correct answer was not assigned to or invested in the students themselves but contained within the detailed criteria sheets.

The lecturers commented that they felt constrained by the options for assessment in the MOOC, with Rod noting that the assessments were required to be 'much more highly constrained' than the assessments used within his on-campus teaching and that it was 'more difficult to have the more creative aspects of what the students might be doing evaluated' (Rod, Interview 1). These constraints were the main way that Rod and Debra saw the MOOCs as differing from the on-campus subject. Debra noted that the course had 'very much the same sort of educational goals that we have for the live university subject [but] because of the constraints of the [MOOC platform] assessment, the students taking the [MOOC platform] subject will not have as big a range of assessment tasks as our own students' (Debra, Interview 3).

Rod declined to be interviewed following the delivery of the MOOCs but Debra was happy with the process and what the students had achieved. For the first MOOC, over 50,000 students enrolled, over 27,000 engaged with the materials, and just over

1200 completed the assessments. For the second MOOC, over 25,000 enrolled, over 7500 engaged with the materials, and over 400 students completed the assessments. However, like Matt and Ethan, both Rod and Debra found the workload in developing the MOOCs highly time consuming. They were primarily confident in their decisions about the course and in its structure and development but struggled with the amount of work involved in developing the materials. Both noted that the development of one 15-minutes video was equivalent to about a day's work before filming began, and that was despite already having their lecture notes already prepared.

As with the Behavioral Ecology MOOC, this case demonstrates the complexity of work and thinking required to move the on-campus subject to the new MOOCs form. Although focused on an interdisciplinary subject, the case highlights the discipline-based, 'inward-facing' (Becher, 1989) orientation of the lecturers' purposes and its centrality in how the subject was designed. It shows how within these aims, content reduction was not a simple issue but something the lecturers saw as potentially changing what students were able to take away from their teaching. The case highlights some of the benefits these lecturers saw in rethinking their content material for the new MOOCs form, but also the challenges of realizing their aims for the subject when the options for assessment and the opportunities for academic judgment of this were limited. It also offers an example of lecturers responding to the unbundled nature of the MOOC by creating more detailed requirements and directions to students about what was required.

6.4   Case 3: Classical Studies, OPM Initiative

Classical Studies was developed for delivery as part of the SandstoneU OPM partnership. This OPM initiative was designed to replicate an 'elite' teaching experience by combining asynchronous student-paced content with live synchronous online sessions in the style of a professor-led tutorial. The subject was developed by Laurie, a classicist with associate dean responsibilities for teaching and learning within his faculty and offered in mid-2014. It was the only subject offered by SandstoneU as part of the OPM partnership before the venture was disbanded. The subject development involved collaboration between Laurie and the US-based partnership production and support team. This was mostly conducted via Skype and email, although Laurie visited the US at one point to film videos for the subject.

The on-campus subject from which Classical Studies derived was offered as a second-year subject with no hard prerequisites. The subject formed part of majors in Latin, Ancient Greek, and Ancient World Studies, and was also taken as an elective by other Bachelor of Arts students, particularly English majors wanting to be able to recognize classical references within literary texts, and students from outside the Arts Faculty with a general interest in the subject. The on-campus subject was structured thematically, comprising different weeks on themes related to the content. It was taught via a weekly 1.5-hour lecture, a weekly hour-long tutorial, and set weekly

readings. The assessment included a 750-word document analysis, a research essay of 1750 words, and a take-home exam of 1500 words.

Laurie described his intention for the online subject Classical Studies not just in terms of what content would be studied, but in terms of the disciplinary ways of knowing underpinning that. He said his aims were to 'give students an accurate impression of the ancient world, how you go about understanding a complex series of cultures and societies within a distant period like that and how that can then reflect on what we do and who we are' (Laurie, Interview 2). He commented that this subject was about approaching ancient material from a 'historical cultural context' and understanding how you 'approach the material that comes down to us and what skills do you need to apply to the material that comes down to us in order to understand what its importance was in that very different cultural context' (Laurie, Interview 4).

According to Laurie, the discipline of classical studies incorporates multiple methodological and analytical approaches designed to understand the different kinds of material evidence from the ancient world, including literary, artistic, and archaeological artifacts. Laurie commented, 'we focus very much on a defined region and period and then anything goes within it in terms of the material that you can bring to bear to understand the culture and society of the times' (Laurie, Interview 2). However, although Laurie felt 'anything goes' to an extent, he was clear that the discipline of classical studies comprised a particular approach and way of knowing that was different from history and literary studies. He strongly objected when the online platform staff labeled his subject as history and insisted on it being relabeled as classical studies. Laurie saw no distinction between his purposes for his online subject and for his on-campus subject, given neither had hard prerequisites and both could be taken by students from both within and outside majors concerned with classical studies. He commented that students take his subjects for a range of different reasons but emphasized that, regardless of background or major, what he wanted to engage students with was an approach particular to classical studies:

> What I really want to engage them with, is understanding things in their very, very complex cultural and changing cultural and social context and most students will understand that and if they don't understand that then I'm doing something wrong. […] hopefully all the students are going on the same sort of journey and they're kind of approaching the material in a similar way even if after the course is over they're getting different things out of it. (Laurie, Interview 2)

As with the lecturers developing the Behavioral Ecology subject, Matt and Ethan, Laurie acknowledged and discussed the different backgrounds, trajectories, and interests of students, but did not see these as guiding the design of the subject. Like Matt and Ethan, he wanted his students to develop a sense of the 'how' of his discipline, not just the 'what' of its knowledge discoveries (although that too is important). When Laurie was asked about his approach to his on-campus teaching, he emphasized depth and discussion:

> I mean the classicist approach is you've got a primary text but what that text might be it could be anything from a site plan to an actual piece of literature to some visual images of statuary or wall painting or whatever it might be but you also have very clearly marked out

"these are the questions we're going to ask, this is how we're going to go about it?" and even how mechanically we're going to go about it, if it's going to be open discussion group work, task based whatever. And don't try and do too much in that time. (Laurie, Interview 2)

Laurie noted that as he has gained more experience teaching, he has increasingly focused on 'providing more time to focus on less'. He commented:

I suppose that's increasing the depth to some extent at the expense of the—just the amount of material that you get through. I mean I suppose it's always a worry that students will get to the end and they won't have done anything in the Hellenistic period of something. […] [But] I don't think it does [matter] if you're confident that you have prepared students with— you've given the kind of tools that if they do need to go on with that they know exactly what to do with it, what to look for, how to go about it. I think it's actually much more important to focus on the how to go about it and you can only do that if you're spending enough time on particular issues, particular problems, particular texts or particular materials rather than going bang, bang. (Laurie, Interview 2)

Laurie noted that many of his students found it difficult to 'keep track of all the details of the narratives because […] there's lots of different narratives'. However, he also saw this volume of material as not contingent but critical to the purpose of the subject and the field. He commented:

The typical discussion when we get to the point of okay what evidence can we use to support that argument, is a student will go 'oh it's that myth with that guy, oh what's his name, he kills the minotaur, what's his name' and they will struggle to keep all of this because there's just so many names. And unless they've got the text directly in front of them, they've got the notation directly in front of them, there's still a challenge to remember it. [...] There's a volume of information that they need to manage in order to actually bring to bear the various skills and to apply the evidence to do the learning and to do the work. (Laurie, Interview 4)

In revising the subject for the online format, Laurie's main concerns centered around (1) ensuring equivalence with the on-campus subject and maintaining the integrity of the face-to-face engagement with the students; and (2) enhancing the level of detail and depth provided in the supporting materials across the different units.

In accordance with the SandstoneU OPM initiative approach, Classical Studies was designed to mirror the on-campus subject, although some minor changes were made to the structure to fit in with the 14-week semester length common in the US where the initiative was based. (In Australia, a standard semester is 12 weeks long). Each week, students were provided with a range of online content which they were expected to review over the course of the week. This content was extensive and typically included an introductory lecture video (referred to as a monologue), followed by additional lecture videos (between 5 and 20 minutes in length). These lecture videos were set alongside 'flipbooks' of slides which included the detail needed to understand what was being said in the videos, such as the definition of key terms. Weekly readings were included within the platform and the weekly content concluded with a 'roundtable' video designed to act as a primer for the weekly synchronous class. These 'roundtable' videos comprised a scripted discussion between the academic and two student actors, leading toward predefined questions which students were expected to prepare answers for in advance of the class.

In making the shift from a lecture to pre-recorded video format, Laurie noted that he did have to think about where the material could be divided and how he 'would begin and end each video to make sure it actually flowed on to the next'. But as he saw it, 'that wasn't really a curriculum change…that was more a presentation issue'. And he felt it worked quite well because 'there are key points obviously in how you plan in a lecture of where your main topics are, where the kind of the introduction phase finishes and you move on to—or you have a case study or whatever, it did actually, for me anyway, fall quite naturally into different segments' (Laurie, Interview 1). He also saw this format as a positive, noting:

> Look my opinion at the moment is that there is no obvious to me, and I would have to see some students actually learning from this but there's no obvious distinction at the level of potential student learning between the video structure that I have for the content and me standing up in a lecture and delivering to the students who are there present. In fact given that they can pause and go back over things immediately, there might be more advantage to having it in for them for their learning to having it in the video format, it might be richer. (Laurie, Interview 1)

In addition to focusing on equivalence between the on-campus and the online subject, the changes Laurie made to the subject materials for Classical Studies were primarily geared toward enhancing the level of detail and providing student support. This is in quite strong contrast to much of the thinking around 'good' online teaching and the framing of the TechU case study subjects discussed later, where there is a lot of concern around content overload putting students off and restricting their engagement with the material (see Chaps. 2 and 7).

The roundtables were also geared toward pointing students in the right direction and were based around the topics and readings used in previous tutorials but contained more structured questions than Laurie would typically use. He also incorporated precise instructions about what elements of the course students should access first and the order they should complete their readings and other tasks into the design. In the second interview, he noted:

> To give one example we're going through the readings and trying to break up the fairly hefty PDFs we have for each week, into a number of smaller PDF's. Focus on 'have this read before you look at the lecture material', 'have this read before you do the round table', 'have this read before you come to the live class so it's just a little clearer.' (Laurie, Interview 2)

This extra context was about providing background for the live synchronous class and support for the kind of fine-grained analysis required in the discipline. Speaking more broadly about emphases in his teaching, Laurie advised:

> …the important thing then is really to remember don't overload them with versions. You can talk, you can provide the context about all sorts of different ways of approaching [the content] but when you actually sit down in the live classes to discuss things in detail, to get their feedback, to get them working on a particular version, try and restrict how much you do but don't splinter that effort, don't dissipate the depth that they can go into it. And to some extent the online approach is a very easy way of doing that cause you've got as much as you like to provide the broader context and the information about approaches to that but when it comes down to the live class it's just like any other live class, you're going to need a key focus on what are we doing here, what are we focusing on in order to get the most out of it. (Laurie, Interview 2)

In revising the structure to meet the US 14-week requirement, Laurie was concerned with 'look[ing] for the particular weeks where we'd known from the experience of teaching it on campus, it was actually a bit crammed for the material that we were trying to fit into that point' (Laurie, Interview 1). He chose to expand one theme (heroes) across two weeks and added a second theme (gods) that had previously been dispersed across the entire course. These two elements were completely reorganized, although they incorporated elements from the on-campus course.

When asked directly about who he thought the students would be Laurie advised, 'I'm trying not to build up too many expectations, quite honestly I really don't know. I suppose if I had to guess, I'd expect students from the same broad set of interests as we would typically get. And as I say I guess one advantage is we're used to a broad cohort in [our subject] anyway' (Laurie, Interview 1). In response to the kinds of students he might get through the SandstoneU OPM Initiative, Laurie kept the requirements the same as his on-campus teaching but added additional instructions around the subject clarifying what was expected and how students should engage with the materials. His emphasis was on maintaining the way the subject has been taught through controlling more strongly for different student trajectories and in bedding down and articulating exactly what needed to be understood about the discipline at that level.

In addition to engaging with the online materials, students were expected to attend synchronous online classes with Laurie and interact with peers in online forums. These synchronous classes were offered via video-link, with students able to be allocated into break-out rooms for small group discussion. In contrast to the MOOCs, these synchronous classes allowed for substantial engagements between lecturers and students and Laurie described the weekly live synchronous classes as being the 'nucleus' of each topic (Laurie, Interview 3). Without this component, Laurie saw the subject as potentially 'shallow' (Laurie, Interview 3) despite his feelings about the benefits of being able to enhance the materials he provided in the online context. In his second interview, Laurie commented that:

> …the real core of both the on campus and the online version is the live class still, they still share that and will continue to share it and potentially the online tools that [the platform] are allowing me to develop might, and should, allow me to enhance and extend the live class small group element of it. (Laurie, Interview 2)

Laurie approached these synchronous classes in a more prescriptive way than his previous on-campus teaching. For each week, he developed 'roundtable' videos which consisted of recorded discussions between himself and two student actors, in which questions and topics were raised which were designed to lead into and prompt student preparations for the synchronous class. In the last interview, which took place after the subject teaching had completed, Laurie spoke about focusing more on the 'detail' of how those synchronous classes would occur in comparison to his on-campus teaching, in terms of 'thinking about how (a) in the seminar leads to (b) leads to (c) to get to the final points that I want the students to take away from the session' (Laurie, Interview 4).

However, Laurie's prescriptive approach to the synchronous classes was different from the other components of the subject given that these classes allowed him to engage with students in the moment of teaching. While Laurie commented that he was considering limiting the material or being 'even more specific with the questions' (Laurie, Interview 2) prior to starting the teaching, once teaching began, he was able to use those classes in an open way, responding to how the students were going each week and the kinds of questions they themselves raised from the material. Laurie did not see the synchronous class as different from an on-campus tutorial since he was able to monitor the discussion in the moment. He commented that the live synchronous online class was 'just like any other live [on campus] class' and was based around a key focus determined as part of the subject development (Laurie, Interview 2). His emphasis was on making the classes a space to 'discuss things in detail, to get their feedback, to get them working on a particular version' without dissipating the depth of discussion. In his approach to designing questions for the synchronous classes, Laurie commented, 'I designed them very carefully to also be escalating, to kind of warm the student into the topic, to get them engaged, to make them start thinking interpretively and then I went up to the big open question at the end that they can respond to' (Laurie, Interview 1). Additionally, the number of students enrolled in Laurie's subject was in the end very small—only eight students—and Laurie was able to work with them in the tutorials in collaborative ways and engage with the substance of their ideas and questions.

The majority of the assessment mirrored the on-campus subject requirements and included a 750-word primary source analysis, a research essay of 1750 words, and a take-home exam of 1500 words. The first task required students to analyze a particular section of a core text; for the research essay they were required to select one of four questions or select their own topic for research; and they had to respond to one of six questions in essay form for the take-home exam. Laurie commented that these tasks were designed to be 'identical to what we do on campus down to the questions asked' (Laurie, Interview 2). There were also multiple-choice questions about the content every second week; these were graded but the percentage allocated was minimal and the intention was more for students to be able to see if they were keeping up with the content and to provide formative feedback.

Laurie was pleased with the development of the subject and with the quality of the materials he developed. There were issues with student numbers—in the end only eight students enrolled, one from the US and the rest from Australia—but Laurie felt those students were given a comparable learning experience to on-campus students. He was very positive about the potential for online learning to allow a richer engagement and expanding the context he could provide for students. In our first interview, he noted,

> Other tools like the flip book, like the increasing I'm thinking the directed—the Roundtable directed discussion, I think are really valuable extras that I wouldn't be able to do in any other way but online. I suppose I could do the flip books in a PDF form, I couldn't do the demonstrated directed discussion interaction in any other way than online and they are additions. (Laurie, Interview 1)

He felt that he learned a huge amount from the experience; not just about how to teach online, but 'how think through what's really, really essential in teaching' (Laurie, Interview 1).

As with the other two cases discussed in this chapter, this case study subject was also focused on a discipline-based approach and on ensuring students develop a sense of the 'how' of classical studies as a discipline. The subject aimed to capture what needs to be understood about the discipline of classical studies and its redevelopment for online delivery focused on articulating that and enhancing the level of detail and student support provided. As with the Interdisciplinary Logic case, this case demonstrates the challenges of reducing the amount of content within a subject of this kind and the potential for this to change the outcomes the subject aims to build toward.

6.5   Conclusion

The SandstoneU unbundled online subjects were developed in a context where lecturers maintained relatively high levels of autonomy over their curriculum development. The subjects were located in different fields, including a scientific discipline (ecology/biology), a humanities discipline (classical studies), and an interdisciplinary field (logic), but common across them was an 'inward' facing orientation toward the internal development of the knowledge field and its own norms of validation in line with the characteristics ascribed to 'pure' disciplinary fields (Becher, 1989; Bernstein, 1996). Together, these cases demonstrate the complex thinking that underpins curriculum work and how lecturers navigated the unbundled form to pursue the kinds of education they saw as valuable. Both explicitly and implicitly, the lecturers developing these subjects indicated their belief in the importance of the discipline and its form as something that they were trying to convey to students, something that extended beyond the particulars that they might select. They also valued student engagement, but within a strong sense of what they were trying to draw students into. These lecturers also faced particular challenges in remaking their curriculum for an unbundled context, particularly in relation to issues of content reduction and assessment. Yet, while they struggled with some of the rigidness of the new platforms and with not being able to relate to students and approach explanations in more tacit and less direct ways, they also liked the ways in which the new form focused their thinking on what students need and encouraged them to think deeply about the content and sequence in relation to the knowledge taught. These experiences highlight the genuinely difficult work of curriculum making and the continued importance of the discipline in how curriculum is constructed. The experiences discussed here both differ and converge with the experiences of the TechU lecturers, which are discussed in the following chapter.

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Chapter 7
Developing Unbundled Online Subjects at TechU

7.1 Introduction

This chapter discusses the development of three unbundled online subjects at TechU, all of which were developed for the same online learning initiative offered via partnership with an Online Program Management (OPM) provider. This OPM initiative was informed by a socio-constructivist approach to pedagogical design and aimed to both engage students and acknowledge their own contributions and sense-making practices. It required that a single page of content summarizing key ideas and expected learning outcomes be provided to students each week, embedded with weekly readings as well as pictures, videos, and quizzes. The initiative's approach was explicitly opposed to the use of talking heads in videos, lectures, PowerPoints, and long reading lists, but was about allowing students to engage with less content material so that they would meet defined learning objectives. Subject content and assessment requirements were developed collaboratively between university-employed lecturers and learning advisers employed by the OPM partner. Subjects were offered asynchronously and were based around weekly learning objectives and targeted activities which scaffolded toward the assessment. Each week, students were expected to engage in related discussion activities via discussion forums. These discussions were supported by online tutors who were required to guide the student interactions based upon the weekly activities and additional instructions from the lecturers. Lecturers and learning advisers did not play any role in monitoring or teaching the subject during the teaching period but could make minor changes to the content in response to feedback from the tutors and students once the subject completed. In contrast to the SandstoneU subjects discussed in the previous chapter, the TechU subjects were developed in a context where lecturers were required to conform to particular pedagogical as well as technological requirements and had far less autonomy over their curriculum development practice.

The three case study subjects were all located within professional fields, with one in education (Teacher Education) and two in business studies (Sports Management

and Supply Chain Management). As with Chap. 6, the discussion in this chapter concerns the aims, priorities, and experiences of the lecturers responsible for each subject and their justifications and explanations of their curriculum decisions. It includes attention to the context of development, the lecturers' aims, the subject structure and content delivery design, the approach to activities and discussion, the assessment design, and the lecturers' general perspectives on the delivery model. The chapter draws on curriculum documents and interviews with subject lecturers conducted as part of the research project in 2012–2014. All lecturers and subjects are referred to by pseudonym and a full list of the documents collected and the interviews held as part of this research project is provided in the appendix. The discussion highlights the challenges the lecturers faced in developing curriculum within a rigid context as well as the benefits they saw arising from this in relation to their own aims and sense of what matters in their teaching.

7.1.1   Case 4: Teacher Education (TechU, OPM Initiative)

Teacher Education was a new subject developed specifically for TechU's OPM initiative. It was designed as a second-year subject which would be taken as a compulsory component in two fully online Bachelor of Education degrees (Early Childhood, Primary Education). TechU had not previously offered degrees in education but saw a market for online pre-service teacher education and hired staff to develop the online subject materials. These staff were originally hired under professional staff contracts as content developers and were not required to have graduate qualifications in education, but after challenges with the original appointments and high staff turnover, the appointments were re-classified as academic and new staff with graduate qualifications were hired. These staff had no on-campus teaching responsibilities and their work was almost entirely on the subject design and accreditation arrangements for the online degrees. This particular subject was developed in late 2013 and offered for the first time in 2014. It was developed by Tara, a lecturer in education at TechU, and Anita, a learning designer located at the OPM provider. Tara had teaching qualifications and had been employed since mid-2013. She had previously taught at other tertiary institutions and within schools and was completing her Ph.D at a different institution over the same period.

The subject was designed to encourage students to think about some of the controversial aspects of literacy teaching. When I asked Tara about the aim of her subject, she commented:

> I think what we're trying to do with this [subject] is to show that literacy is really, really diverse and it's not just your traditional form or traditional view of literacy. So we're trying to tackle some of the controversies with regards to digital literacy and we're also trying to tackle how a contemporary twenty first century teacher will do that with children in the classroom. […] we're also starting to tackle some of the controversies around what literacy actually is, multiple literacy, digital literacy. (Tara, Interview 1)

This emphasis on the complexity and the diversity of perspectives, according to Tara, was about ensuring students appreciated the wider contexts in which they would be working and were able to speak back rather than passively absorb policy directions within the field of teacher education. She explained:

> [Within the teaching profession] you are given things you're told to swallow, to basically take the policy, digest the policy, implement the policy. […] [But] you have to be able to talk back and […] be given the skills to actually argue back and talk to things because […] [otherwise] we're not empowering teachers to actually digest and unpick the reasoning behind that framework. […] I see my role as a teacher educator is giving some controversies, throwing things out there and really considering them […] there's still a place for teaching students through the curriculum and teaching students through the framework but also you want to get them to challenge because if you've got your children in that classroom you'd rather those children being taught by a teacher who is able to think creatively rather than just swallow the latest government document. (Tara, Interview 2)

Tara emphasized that it was important 'for us, as education lecturers' to 'make sure that we're actually publishing and trying to change things and talking back to policy and giving our students those skills to talk back to things' (Tara, Interview 2). Here, Tara emphasized the importance of developing in her subjects concepts of teacher professionalism, identity, and agency to educate teachers to be active in constructing and critiquing the contexts in which they worked. She wanted students taking her subject to critically engage with the contexts and purposes of their professional work, and to debate and consider controversial issues as part of that.

At the same time, Tara's subject development was oriented to ensuring the students produced work relevant to their professional practice. The core assessment comprised a portfolio task which required students to source and analyze examples relevant to their practice in relation to the weekly topics and the majority of the learning outcomes identified for the subject concerned the development of professional skills. This, Tara commented, was about ensuring 'the students go away with some resources which they have built together, shared together which will then help them with their profession and their professional growth' (Tara, Interview 1). So for Tara, a key purpose of her subject was to produce certain kinds of critical creative professionals with an underpinning knowledge of controversies and also to build some professional resources that would be useful to those students in their work.

Tara's focus on professional practice and identity was in line with Becher's (1989) arguments about the outward-facing focus of 'soft-applied' fields and Muller's (2009) arguments about contextual coherence (see Chap. 4). Muller (2009) characterizes teaching and teacher education as aspiring to the autonomy and stability of traditional professions such as law or medicine but not yet at the same level in terms of social organization and disciplinary robustness. These issues are evident in Tara's aim to develop teachers who can advocate for the profession and speak back to others seeking to dictate the contexts in which they work.

The subject was designed to commence with four weeks introducing concepts of literacy and multi-literacy, emergent literacy (i.e. more contemporary thinking), pedagogy, and assessment. It then went on to cover topics in speaking and listening, writing, and reading, alternating between a focus on early childhood and primary

education due to the mixed cohort of students taking the subject. The last two weeks covered digital literacies and personal literacy development.

The content for each week was structured on the platform site into three tabs which Anita, the subject learning designer, labeled 'Approach', 'Appreciate', and 'Apply'. Under the Approach tab, students were provided with an introduction to the week, the key points to be explored, and an animated video. Each of these animated videos started with a quote relating to literacy then included an animated scenario that introduced a controversial issue and ended with a question. The animated scenarios were based on interactions between a new principal and a teacher trying something controversial in their classroom. They were scripted by Anita (the subject learning adviser) on advice from Tara. The quotes for the animations were taken from academic sources or from government and policy documentation. The concluding question was intended to then guide the rest of the discussion activities for the week as well as the resources produced for the second part of the assessment requirements.

The Appreciate tab was intended to be accessed by the students after they had read the weekly introduction and watched the animated video. For each week, this tab provided two to three core readings, along with a selection of extra resources that might assist students with their assessment tasks. It also included some reflections on those texts developed by Tara to encourage critical engagement by students.

Finally, the Apply tab explained the weekly task. This typically asked students to think about the issue contained in the animated video in the context of the readings and to develop an item for their portfolio assessment. Students were required to share this item in the discussion forums and discuss how it related to the week's topic and controversy.

Tara noted that the overall approach was intended to create 'some purpose and meaning rather than just a list of themes for the week linked to the assessment', and that this was 'because you want to grab the attention of the students and you want to make it more engaging' (Tara, Interview 1).

Tara's content decisions were also focused on limiting the content required to align with the pedagogical requirements of the OPM initiative model and recognize the needs of the students. She commented, 'we don't like to bombard the students with a large amount of text on screen' (Tara, Interview 1). Talking more about the student body and their requirements, she elaborated:

> …if you're a student who is working full time or have got family commitments, you need to get through the course in, human nature, the quickest way possible […] it might be really nice for us to give them an x number of readings, and x number of videos but you want the simplest way because you just want to pass this [subject]. It's just a Bachelor's degree and that's lots of conversations we keep having, it's just a Bachelor's degree, it will be built on and we just need to make sure that by the end of the degree they've demonstrated everything as opposed to in a second-year literacy [subject]. (Tara, Interview 1)

These comments show Tara's attention to the potential constraints of her students and how her views of their requirements for additional scaffolding, support, and streamlined material influenced her subject design.

Under the TechU OPM initiative model, students were required to engage in discussion and interaction related to the content presented via discussion forums.

Discussions were conducted over each week and were supported by the online tutors who were required to guide the student interactions based upon additional instructions from the lecturers. In talking about the design of these activities, Tara emphasized the importance of these instructions to tutors and developed notes that were around 25 pages in total. These notes provided rationales for the structure of the content and included approximately five extra weekly resources for the tutors to post themselves in the discussion boards. Tara commented that this level of detail was necessary because she was concerned that the tutors would not 'understand the bigger picture of the degree' (Tara, Interview 1) and might try and extend the students' learning into areas covered in other subjects. She noted that in providing this level of support for the tutors she was 'being a little bit of a control freak with my [subject]' but that she felt there was a risk if the tutors sourced their own resources they might take the 'tone of the [subject] in a different way' (Tara, Interview 2). Tara worried that if her supporting notes were not completely explicit students might 'go into a negative deficit view of literacy or [think standardized testing] is essential and we must just do reading and writing as opposed to thinking about digital literacies and contemporary technologies' (Tara, Interview 2). These comments highlight some of the challenges of designing open-ended discussion activities in a context where the discussion was to be led by someone else.

The subject assessment comprised an essay and a portfolio task. The essay required students to think about whether critical literacy skills should be understood as more than reading and writing in the context of Australia's national literacy assessment program (see National Assessment Program, 2016). The portfolio task required students to collect and critically analyze a selection of resources related to each week's discussion and activities. It comprised a template which required students to provide a brief description of each resource, evidence of it (such as a link or screenshot), a description of how it could be used and why it was relevant to the weekly topic and a critical analysis of its merits and limitations. Both assessments were closely tied to the defined subject outcomes. In designing the course, Tara drew up tables which showed where the outcomes were developed across the different weeks and the associated assessment tasks.

The requirements for the portfolio assessment were highly prescribed. Anita, the subject learning adviser, commented about the support offered to complete the task:

> They've got quite a lot of guidance. So, for instance, in the week on writing and primary, they need to find two creative and contemporary strategies to develop children's writing skills in primary classes. So there's guidance on the number of things they have to find on the broad sort of category, so here it's strategies for developing writing skills. They're told that it needs to be creative and contemporary but then within that they can go as far afield as they like as long as they're still doing that analysis of explaining what it is, how it's used, the advantages, limitations and finding the academic resources to support its usage. (Anita, Interview 2)

Student submissions for this task needed to conform to rigid template expectations, with set lengths allocated for each component. Students were provided with a detailed rubric with marks allocated for each element corresponding to the defined content. The template was designed to orient students to theoretical and conceptual concepts in the subject's content. What was left up to students was the selection

of the resources where they can go 'as far afield as they like' (Anita, Interview 2). However, the task was very self-contained and there was little that asked students to go beyond what they were given in formulating their commentaries.

Tara was generally positive about online learning and felt that the TechU OPM initiative approach was more 'transparent and accountable' than on-campus teaching because it meant 'you're able to say "alright this is what we'd like the end result to be"' (Tara, Interview 1). She saw this focus on meeting defined objectives as encouraging more 'detailed' thinking about 'how does this [concept] build' (Tara, Interview 2) than might be the case in on-campus teaching.

Overall, this case provides an example of a subject oriented toward the development of students' professional identity but also developed with the constraints students might face in completing the subject and the pedagogical requirements of the OPM initiative in mind. The subject conformed with the policy leaders framing of good online teaching (see Chap. 4) in its focus on outcomes and alignment, as well as Tara's concerns with clarity, transparency, and content reduction. The guidance provided to students was considerable and assessment requirements were explicit with little interpretation required.

7.1.2 Case 5: Business Studies 1: Sports Management (TechU, OPM Initiative)

Sports Management was a new subject developed specifically for TechU's OPM initiative. It was designed as second-year subject and intended to be primarily taken by students completing a Bachelor of Business specializing in Sports Management. Within this stream, students take a suite of eight Sports Management subjects, including this subject, as well as eight core business subjects and eight elective subjects. All subjects were only offered online. No equivalent subjects were offered on campus and the subjects were conceived and developed for the OPM initiative. This subject, Sports Management, was developed and offered for the first time in 2013.

Under the partnership arrangement at TechU, the subject was developed by Grant, the academic discipline leader for public relations and advertising, and Zac, a learning designer at the OPM provider. Previously, Grant had developed curriculum for fully online subjects and taught across the undergraduate levels in on-campus and blended delivery (combining on-campus and online teaching) modes. He was responsible for the development of all Sports Management subjects for the TechU OPM initiative.

In the Sports Management subject, Grant was oriented to the particular requirements of professional practice within the field and with developing students' skills for working specifically within a sports management industry in 'actually managing clubs and facilities as businesses' (Grant, Interview 1), in line with arguments about 'soft-applied' professional fields (Becher, 1989; Muller, 2009, see Chap. 4). According to Grant, the subject aimed to both develop practical skills and understanding of the theory useful for professional practice. He commented:

…because it's part of a Bachelor of Business, there's a very practical element to the [subjects] that have been developed. Underpinning that practicality is that you want to give them very good grounding in any sort of theories and past principles that have been utilized commonly through practices in the industry, make them aware of the different options and solutions that are available or that have previously been used in the industry and just build on their business skills to be able to apply that in sports specific situations. (Grant, Interview 3)

Grant saw the professional field as the primary point of reference for his subject development. He commented, 'I think that most of your knowledge in a particular field or discipline is gained on the job' (Grant, Interview 3). He felt that business degrees were based 'on common sense and on just life skills and life experience' and saw the theory and education as simply providing greater 'confidence in your decision making process' rather than a different kind of way of seeing things.

The subject was structured into 12 weeks. It included an introduction week which defined sports marketing followed by themed weeks on sports consumers, sports objectives, the marketing planning process, sports products, sports pricing, market research, promotional strategies, advertising, sponsorship and branding, reputation management, and new media and interactivity. The first 11 weeks all included at least one case study, each of which comprised content that was either based on a contemporary media report or interviews with industry contacts. Grant advised that each week introduced students to a background theory or group of theories and included a small number of cases 'students will look at and then through their discussion will do analysis and judgment on them' (Grant, Interview 3). The final week was primarily dedicated to revision but included some discussion of the future of sports marketing.

Each week, the students were provided with weekly readings and a selection of case study resources. The readings were typically 1–2 chapters taken from the same textbook, while the case studies were typically non-academic texts but included examples of marketing plans, advertisements, or similar documentation from particular businesses, as well as newspaper or magazine articles or videos about particular issues.

The broader field of business studies is characterized by Muller (2009, p. 220) as a newer 'fourth generation' profession. It is oriented more toward 'contextual' than 'conceptual' coherence in curriculum development, with less formal entry requirements, a greater importance attached to on-the-job practice, less sequential curricular requirements and a more easily 'modularizable' curriculum. These elements were evident in Grant's subject design and the way it drew together different case studies and topics over its 12-week structure. Grant's view of the subject was that it was easily segmentable, with the different weeks adding in new topics rather than building toward an explanation of a particular concept.

When asked about the sequence of his Sports Management subject, Grant simply replied that the sequence tended to be directed by the textbook selected. He emphasized the importance of making sure the content he brought to the first meeting with learning designers was only at the 'skeleton stage' and commented that only after that would he 'be thinking about particular content that needs to put some meat on the skeleton content' (Grant, Interview 1).

In designing the subject, Grant contacted practitioners in the field to confirm the kinds of topics they would see as most relevant for inclusion. He selected twelve topics for the twelve weeks of the subject based on professional advice and the contents of textbooks on the subject. He selected the content on 'more of a principles and theory basis' (Grant, Interview 1), with the weekly content designed around relevant case studies. Grant commented that the knowledge of the field was always in constant change because 'something that was a great case study two months ago is now obsolete or something has usurped it' (Grant, Interview 1).

Students were required to complete weekly activities related to focus questions. They were also required to share their thoughts about a particular situation relevant to the weekly content with the group. As one example, Grant noted that the week on sports promotion included some discussion of attracting female support and the discussion activity asked students to think about whether targeting women might alienate a male audience. Grant commented that these activities involved 'leading questions developed to try and draw out the key facts and principles from the case studies in the discussion' for each week. He elaborated, 'My development has included quite comprehensive discussion questions that are leading the students to hopefully coming up with a particular solution or a particular answer' (Grant, Interview 1). His emphasis here was on the importance of students' discussing the right things in the right ways and he was concerned about the possibility that the discussion might go off track.

The subject assessment comprised a case study response (25 percent), a marketing plan (25 percent), 10 journal questions requiring a 100-word answer (20 percent), and two 30-minute online multiple-choice tests (30 percent). Parts of this assessment aimed toward the development of practical skills in requiring students to analyze a case study of a particular marketing campaign situation and develop a marketing plan, while other parts, such as the multiple-choice tests, were focused on testing student's content knowledge. The case study required students to consider the branding of the Paralympics by reviewing a promotional video and then consider the kinds of market segmentation and market research that might have informed that campaign. The marketing plan similarly required students to develop a plan for a hypothetical women's basketball team, considering issues such as whether they might differentiate the team from a men's basketball team. The 10 weekly journal questions (Weeks 2–11) asked students to consider particular points about a prescribed case study scenario and tended to mirror the kinds of discussions occurring for that week in the discussion board. In the week on sports promotion, for example, students were asked to read a development plan for the National Rugby League and then identify and reflect on the key objectives. Grant commented that the purpose behind the weekly journal questions was 'so that students are engaging each week, on a weekly basis with what's being discussed in their discussion groups and then having to take some information, ponder it, review it, maybe do a bit more research and then come up with a weekly contribution' (Grant, Interview 3). He noted that in a lot of the subjects he developed, he liked to have a small piece of assessment to keep the students engaged across each of the weeks (Grant, Interview 2).

When Grant was asked whether there was anything different or challenging about developing subjects for unbundled online delivery he commented:

> When you're delivering online, particular as the developer, I'm not part of the delivery and obviously, which is par for the course, text online has to be put into context and you know the use of text has to be very careful that there's not ambiguities in the information that's presented that can be explained face to face, you don't have that same opportunity online. (Grant, Interview 1)

When asked how he tried to get around the challenge of not being part of the subject delivery, he replied, 'Basic wording, uses of good case studies and then leading questions developed to try and draw out the key facts and principles from those case studies in the discussion' (Grant, Interview 1). In a later interview, when Grant was asked to expand on how he sees the differences between online and on-campus teaching in terms of process, he commented that the learning objectives and assessments tended to remain the same, but there was more opportunity for interactive discussion in an on-campus environment and more opportunity for reflective analysis and self-directed learning online. He commented that 'the tyranny of distance … sometimes makes it difficult to exactly replicate what you do on campus' and saw the difference as not in terms of the content, but in terms of 'the activities that you use obviously to deliver that' (Grant, Interview 2). Grant also felt the monitoring that online learning makes possible is beneficial. He commented:

> I would probably say that developing online [subjects] gives you more insight into the depth of knowledge that people take out of readings through the way they discuss them online as opposed to the more face to face general small group discussion that you would have in a tutorial classroom type situation where, as a teacher, you're not really across everything that's been discussed in each of the groups. (Grant, Interview 2)

Overall, this case study offers an example of a subject oriented toward the views of professionals in the field. Like Teacher Education, this was combined with adherence to the pedagogical requirements of the OPM initiative, particularly in terms of an emphasis on content reduction and aligning weekly activities with the assessment requirements. Grant's interview responses also emphasized the importance of clarity, the benefits of transparency, and the more limited opportunities for less controlled discussions available in unbundled online contexts.

7.1.3 Case 6: Business Studies 2: Sports Management Supply Chain Management (TechU, OPM Initiative)

Supply Chain Management was a new subject developed specifically for TechU's OPM initiative. The subject was designed as a third-year subject intended to be taken by students completing a Bachelor of Business specializing in logistics and supply chain management. Students in this stream were required to take a suite of eight logistics subjects, including this subject, as well as eight core business subjects and eight elective subjects. All subjects were only offered online and were

developed particularly for teaching via the partnership arrangement with the OPM provider. The subject was developed in late 2013 and offered for the first time in 2014. Under the partnership arrangements between TechU and the OPM venture, Supply Chain Management was developed by Leah, a lecturer and subject convenor employed sessionally, and Zac, the learning designer who also supported the Sports Management subject development. At the time of interview, Leah had been a sessional lecturer at TechU for over 10 years and had worked previously on both online and on-campus subjects.

Leah saw the purposes of this subject as being about developing student understanding of the kinds of issues and problems likely to be encountered within professional practice. She commented that the subject was primarily oriented to a consideration of 'if you've found yourself working in this area, here are some of the things that you might need to consider' (Leah, Interview 2). Leah explained that the subject was about getting students:

> …progressively to think in that multi-dimensional sort of a way and considering the complexity, the fact that these [supply chain and procurement] decisions are not black and white, there are repercussions of something that may have a great short-term benefit may actually be quite detrimental to the business in the long run. Those sorts of issues and sort of building a bit of a story about that. (Leah, Interview 2)

Leah emphasized the importance of appreciating 'the complexity of today's business environment and the fact that there are system-like relationships, everything connects to everything else' and the importance of ensuring students understand that you cannot 'think linearly in today's world' (Leah, Interview 1). She noted that subjects within the field were predominantly taken by students with prior practical experience working within supply chain management but who had reached a ceiling in terms of their progression without further study. Because of this, she saw the subject as aiming to encourage those students to engage in complex thinking about the dilemmas they might face in the workplace:

> [They need] to think critically, especially when they're so used to going 'here's a problem, here's how I solve it' and not necessarily being in a habit of rationalising or justifying 'why do I think this is a good solution for this problem […] how do we know, is there some research that suggests that that's a good idea or have we tried it before, is there empirical evidence' or what not. (Leah, Interview 1)

Leah commented that the subject was 'concept and practice-based' rather than 'competency based' (Leah, Interview 1) and emphasized the specificity of supply chain management as an area of study and practice, compared with students whose backgrounds were in marketing or another business studies area. She noted that the subject drew on empirical evidence and was primarily oriented to 'how does this work in the real world rather than how does this work in a theoretical research bubble' (Leah, Interview 2). She supported her stance by selecting readings from industry rather than academic journals. The subject was structured to engage with the different elements required in making different kinds of supply chain management decisions, including in relation to working out business requirements and comparing potential

vendors. Leah saw the knowledge purposes of her subject as about providing professionals with the tools to solve practical problems in context. Like Grant, she took the professional field as a primary point of reference and saw the value of theoretical knowledge as supporting and enhancing the kinds of decisions that students might make as practitioners and the ways in which they might approach and understand their work and its wider context.

The subject followed a 12-week structure that was guided by the kinds of information students would need to make a procurement decision, as well as key concepts. Following the introductory week, weekly topics included sourcing, solicitation of bids, supplier selection, contracts and legal aspects, risk management, sustainability, contract management, quality, managing internal and external relationships, and innovation. This structure was designed by Leah but referenced the subject approval documentation which had been developed by another academic. The readings and resources for the subject included chapters from a set textbook along with a range of articles from industry journals and short videos. The readings were always provided at the end of the week's page, after the videos and weekly summary.

Yet while Leah framed her subject purposes and aims in relation to the vocational skills and thinking she wanted students to develop, her subject development was also strongly informed by attention to generalized understandings of what was required to keep students engaged and on task. She wanted to encourage students' active engagement with the content taught by acknowledging their existing ideas and encouraging connections between theory and practice in line with some of what Sjøberg (2010) writes about constructivist teaching (see Chap. 4). However, in speaking about her students, Leah also emphasized generalized needs around flexibility and reduced content evident within TechU's policy framing (see Chap. 5). She commented:

> …we used to do a lot of concepts [in her previous on-campus and online teaching], we would say okay here is the topic for the week, then here is a little paragraph that summarises what this topic is all about and here are five key concepts in this and then we might have for each of the concepts there would be either a reading or a little YouTube video or something or another for them to do and then an activity to do with something else. And one of the things that I found is that it was just overwhelming, they would look at this page and there would be so much and they'd go 'oh my god I have to get through all of this in one week, I don't know where to start'. So as we went along we started to simplify it and break it down. Where now it's literally, here is the little summary and the summaries are much shorter as well, whereas it used to be like a five sentence summary, now it's a two sentence thing […] [Because] in reality if I give them three peer reviewed articles to read every week, they're just going to drop out by week three. It's just completely impractical because they'll be bored. […] this scares me to say it, but some people don't have enough literacy to be able to navigate through an academic article. That's really the bottom line of it and you have to account for it. (Leah, Interview 1)

Leah saw her students as requiring additional scaffolding, support, and streamlined material, and this was a key factor in how she designed the subject. Leah commented that this reduction of content was about focusing on what was core rather than peripheral to a subject. She stated, 'I do try to take it back to basics, not dumbing it down as such but just going really back to the basics of that particular topic, what do they have to know' (Leah, Interview 1). Her curriculum design was also informed

by an outcomes-based approach (e.g. Biggs & Tang, 2011) in line with the TechU OPM initiative model. The content for each week dealt with a particular concept that students needed to understand to produce their assignments. Leah commented about her design principles, 'I think of it's as a gestalt therapy, you know, it's like a string of pearls and if you follow them along you're going to get to the end' (Leah, Interview 1).

Students were asked to participate in weekly activities as with the other TechU subjects. These activities were designed to build on the readings and resources by asking students to consider how a particular concept applies in a given case study. Leah felt that the activities 'build the common sense part of it' (Leah, Interview 1) into the subject and allow students to move from a complicated concept (such as a make or buy decision) to understanding how it might be thought about simply in relation to their own lives (such as in making a decision between buying or renting a house). She noted that the activities were about asking students to apply the concepts after learning about each one.

Leah commented that her approach to online discussion tended to be more 'standardized' and strongly directed than in on-campus (Leah, Interview 1) in common with the other TechU lecturers. She saw this strongly supported approach as particularly necessary due to the asynchronous nature of the discussions and the ways this made it harder for students to see what was relevant.

The subject assessment included an essay (50 percent) and a procurement plan (50 percent). The essay was more theoretically or conceptually oriented and included two options (Part A and B). Part A required students to draw on the theory and literature to describe and reflect on how requests for procurement are prepared. Part B asked students to describe and reflect on how proposals are evaluated. Students were assigned one of those options and paired with a student who completed the alternative option. In the second assessment, the students worked in pairs to develop a procurement plan in response to a hypothetical scenario involving a request for a sustainability business case for the use of solar panels. The direction given was less prescriptive than the assessments for the previous two case study subjects and the students were encouraged and expected to draw on their own backgrounds and the other areas they have studied in developing their plans. Together the assessments were intended to allow students to develop both conceptual knowledge through the first assessment and real-world experience through the second.

In comparing her experience developing subjects for the TechU OPM initiative to her on-campus teaching, Leah stated that she felt for on-campus teaching 'there's not such a need to be so explicit' compared with developing online materials (Leah, Interview 1). Leah commented that in comparison, her on-campus teaching is far more receptive to students and to the discussion in the classroom. She also felt there was less openness to achieve this kind of work without confusing the students within the online discussion space.

Like the previous two cases, this case study subject was oriented toward professional practice but it was also explicitly designed with student capabilities in mind, and to align with the pedagogical requirements of the OPM initiative. Leah was

concerned with encouraging students to grapple with complexity and the connections between theory and practice but also with ensuring the subject offered what she felt students could cope with. Her design focused on scaffolding and streamlining material and she was concerned with aligning activities to assessment requirements.

7.2 Conclusion

The TechU unbundled online subjects were developed in a context where lecturers were required to conform to particular requirements. The TechU lecturers were very directed in what they did by these requirements and as a result their work aligned strongly with what was seen as important at the university level (Chap. 5). These case studies were located in professional fields and the lecturers were strongly oriented to the requirements of these fields and to ensuring relevance for students' professional practice. Yet while these lecturers' aims were oriented to the particular, their key reference points of thinking about their content selections were strongly informed by generalized understandings about what matters and what students need and can cope with. They felt that the unbundled online context limited their ability to relate with students and approach explanations in more tacit ways, but they also liked the way it encouraged them to think more explicitly about content and sequence and how to enhance alignment between the activities they designed, and the defined outcomes of the subjects.

In comparison to the SandstoneU lecturers (Chap. 6), these lecturers were far more concerned with generic engagement purposes in terms of keeping students on task. They were subject to far more oversight than the SandstoneU lecturers and were more inclined to align with the generalized understandings of how student engagement is best met and how curriculum should be constructed evident at the university policy level. Compared to the lecturers at SandstoneU, the lecturers developing the TechU subjects tended to be junior in status—Leah (Supply Chain Management) was a sessional on a casual employment contract, and Tara had previously taught at other universities but had only recently been appointed to TechU and was still completing her Ph.D. The differences evident point to some of the distinctions between 'sandstone' and 'technical' universities and the different ways lecturers are able to work within them (Marginson & Considine, 2000), as well as distinctions in the ways senior lecturers are able to exert academic autonomy in respect of their teaching compared with more junior lecturers. The different status of academics developing online curriculum also highlights the complexity in how curriculum is put together, as well as the constraints in terms of what is possible for lecturers to achieve in unbundled online initiatives, and the ways these emerge in different contexts.

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Chapter 8
Disciplines, Professional Fields, and Their Significance

8.1 Introduction

There has been significant debate about the role of disciplines and professional fields in university curriculum development (Muller, 2009; Muller & Young, 2014; Trowler et al., 2013). As part of these debates, concerns have been raised that disciplinary knowledge is being undermined by a context which tends to privilege generic vocationally oriented agendas (Karseth, 2006; Wheelahan & Moodie, 2021; Young & Muller, 2015). This chapter considers these debates in relation to the moves toward unbundled online learning at SandstoneU and TechU. It considers first the important differences between the lecturers in the disciplines and professional fields in relation to how they approached their curriculum development, and the challenges they experienced in developing curriculum for unbundled contexts. It then looks at how differences between disciplines and fields were recognized by the university leaders at the two universities and the particular challenges this raised.

8.2 Differences Between Disciplines and Professional Fields in Curriculum Development

The SandstoneU lecturers (Chap. 6) were located within disciplines such as behavioral ecology, while the TechU lecturers (Chap. 7) were all located within professional fields such as business studies. At SandstoneU, the subjects located within a science discipline (Behavioral Ecology), a humanities discipline (Classical Studies), and an interdisciplinary field which was described by the lecturers as a 'quasi-discipline' (Interdisciplinary Logic). The TechU subjects were located within the professional fields of education (Teacher Education) and business studies (Sports Management and Supply Chain Management) (see Table 8.1 for an overview of these subjects). These knowledge forms are differentiated in the literature in a number of ways, notably through Becher's (1989) distinctions between 'pure' and 'applied' forms

of knowledge, and Bernstein's (1996) categorization of 'singulars' and 'regions'. Becher's (1989) work distinguishes between 'pure' and 'applied' forms of knowledge in relation to their degree of concern with knowledge application, and Bernstein (1996) makes a similar distinction between 'singulars' (pure disciplines) and 'regions' (professional fields) based on their orientation toward their own development or toward various fields of practice. Under these typologies, the lecturers at SandstoneU and their subjects would be categorized as belonging to the 'pure' and 'singular' categories, while the lecturers and subjects and TechU would be categorized as belonging to the 'applied' and 'region' categories. The cases examined in this research are limited in number and do not capture all elements of the pure/applied spectrum, nor do they perfectly typify the categories represented. They were selected to capture some of the differences between disciplines and professional fields identified in the literature, but the choice of subjects was not tightly set up in relation to the different binaries and ways of categorizing subjects but designed to enable generative comparison across them. The cases are used in this chapter not to make a case for what curriculum making might always look like in a particular kind of discipline or field but to point toward some potential important differences which are being neglected in current university policies.

The literature on distinctions between these knowledge forms (see Chap. 4) identifies three important differences in relation to curriculum work. First is the inward-facing emphasis on conceptual coherence in the disciplines and the outward-facing emphasis on contextual coherence in the professions (Muller, 2009). Second is the lesser concern with examining conflicting evidence and alternatives in the professions compared with the disciplines (Neumann et al., 2002). Finally, there is the stronger influence of outside intervention on professional fields (Becher & Trowler, 2001). These emphases emerged across the unbundled case study subjects in how the lecturers talked about the priorities in a number of ways.

One important difference concerned the inward/outward orientation (Muller, 2009) and how this manifested in lecturers' curriculum development. In line with

Table 8.1 Universities, unbundled online initiatives, and subjects

University	Unbundled online initiative	Subjects	Subject category
SandstoneU	SandstoneU MOOC Initiative	Behavioral Ecology	Discipline (science)
		Interdisciplinary Logic	Discipline (interdisciplinary)
	SandstoneU Online Program Management Initiative	Classical Studies	Discipline (arts/humanities)
TechU	TechU Online Program Management Initiative	Teacher Education	Professional field (education)
		Sports Management	Professional field (business studies)
		Supply Chain Management	Professional field (business studies)

the characteristics ascribed to 'pure' disciplinary or 'singular' fields (Becher, 1989; Bernstein, 1996; Muller, 2009), the SandstoneU lecturers maintained a strong orientation to the internal logic and rules of the disciplinary field and emphasized the importance of attending to the internal rules and structure of the knowledge field within curriculum. The subjects developed by these lecturers (Behavioral Ecology, Classical Studies, Interdisciplinary Logic) were located in different forms of knowledge, including a scientific discipline (ecology/biology), a humanities discipline (classical studies), and an interdisciplinary field (logic), but common across them was an 'inward' facing orientation toward the internal development of the knowledge field, its own norms of validation and how knowledge in that discipline develops.

Both explicitly and implicitly, the lecturers developing these subjects indicated their belief in the importance of the discipline and its form as something that they were trying to convey to students and something that extended beyond the particular content that they might select. This is evident in the following quotes from the lecturers about their subject purposes introduced in Chap. 6:

'I wanted to give people a chance to learn a bit more about the research behind those discoveries and to just understand a little bit more about how animal behavior research is conducted'. (Matt, Behavioral Ecology, Interview 1)

So there is still going to be that kind of interdisciplinarity in the [MOOC]. That is a crucial thing for us… That is a crucial thing in what it is to learn this at a university level. Because—it's like the difference between learning arithmetic and learning mathematics. You could learn this as just a bunch of different little skills, which is like often how mathematics is taught in school, we just need you to learn your times and plus tables and everything. And sure there's a space for that. But we want to motivate this by saying, here are lots of different ways of how that's applied. And then we want to evaluate its success on that basis of those things as well. (Rod, Interdisciplinary Logic, Interview 1)

What I really want to engage them with, is understanding things in their very, very complex cultural and changing cultural and social context and most students will understand that and if they don't understand that then I'm doing something wrong. […] hopefully all the students are going on the same sort of journey and they're kind of approaching the material in a similar way even if after the course is over they're getting different things out of it. (Laurie, Classical Studies, Interview 2)

As indicated in these quotes, these lecturers took seriously the disciplinary frame as the definitive boundary in deciding what was appropriate as the subject content, and the content of the subjects were strongly linked to the overarching frame of what study within the particular discipline comprises and not driven by segmentation of the content for online delivery. The subjects were strongly 'classified' in Bernstein's terms, governed by their 'own specialised rules of internal relations' (Bernstein, 1996, p. 7), rules which were identified within the subject materials. These lecturers focused in their curriculum development on explicitly identifying what study within the research field looked like and the processes, concepts, and methodologies associated with that. They intended to convey a sense of how the disciplinary knowledge had been developed and of this knowledge as continuing to emerge rather than being settled. For these lecturers, understanding the content of the subjects was seen as important but the primary value and purpose of the subjects was

seen in developing an understanding of the broader 'way of knowing' (Bernstein, 1976) in which the discipline knowledge was situated. In line with Muller (2009), there were clear differences between the subjects located within 'hard' disciplines and within hierarchical knowledge structures (Behavioral Ecology) compared with those located in 'soft' disciplines (Classical Studies) in terms of the importance attached to sequencing. However, regardless of these distinctions these subjects were all oriented to the 'way of knowing' guiding the field, not just to conveying the fruits of previous disciplinary work. In line with Muller's (2009) arguments about the importance of attending to the internal rules and structure of the knowledge field within curriculum and the wider social realist arguments about the value of disciplinary knowledge (Young & Muller, 2015), the lecturers felt that disciplinary coherence remained of critical importance despite the unbundled online context. They felt that the value of understanding the rules and norms of the disciplinary approach was significantly greater than an approach which offered content knowledge abstracted from that, even for subjects disconnected from a wider disciplinary program of study.

The TechU lecturers were oriented toward the specific requirements of their respective professional fields and the development of particular understandings and practices. They emphasized the importance of 'on-the-job training' and took the professional field as a primary point of reference. They saw the value of theoretical knowledge as supporting and enhancing the kinds of decisions that students might make as practitioners and the ways in which they might approach and understand their work within the wider context. They were strongly oriented toward the particular professional contexts and the identities that students were expected to develop. As a result, they wanted to develop particular kinds of ways of thinking or approaching a problem in their students. This was evident in their comments about their subject aims (discussed further in Chap. 7):

> I see my role as a teacher educator is giving some controversies, throwing things out there and really considering them […] there's still a place for teaching students through the curriculum and teaching students through the framework but also you want to get them to challenge because if you've got your children in that classroom you'd rather those children being taught by a teacher who is able to think creatively rather than just swallow the latest government document. (Tara, Teacher Education, Interview 2)

> …you want to give them very good grounding in any sort of theories and past principles that have been utilized commonly through practices in the industry, make them aware of the different options and solutions that are available or that have previously been used in the industry and just build on their business skills to be able to apply that in sports specific situations. (Grant, Sports Management, Interview 3)

> So getting them progressively to think in that multi-dimensional sort of a way and considering the complexity, the fact that these [supply chain and procurement] decisions are not black and white, there are repercussions of something that may have a great short-term benefit may actually be quite detrimental to the business in the long run. Those sorts of issues and sort of building a bit of a story about that. (Leah, Supply Chain Management, Interview 2)

As these comments show, these lecturers' strongest reference point was about what was known to be useful in the workplace, creating more flexibility about content and structure in the curriculum. All three subjects were located within 'soft-applied'

knowledge fields in Becher's (1989) typology of academic work: two in business studies (Sports Management and Supply Chain Management), a field Muller (2009) categorizes as a newer 'fourth generation' profession, and one in education (Teacher Education). Both fields, according to Muller (2009, p. 220), are oriented more toward 'contextual' than 'conceptual' coherence in their curriculum development, with less formal entry requirements to tertiary study, a greater importance attached to on-the-job practice, less sequential curricular requirements, and a more easily 'modular-izable' curriculum. In line with this, all three lecturers saw the subjects as easily segmentable, with the different weeks adding in new topics rather than building toward an explanation of a particular or overarching concept.

One important difference between disciplines and professional fields which has not previously highlighted in comparative analyses of curriculum development was the approach to communicating the way of knowing informing the subject to students. For the SandstoneU subjects, the disciplinary approach was explicit in the subject design and students were invited into disciplinary conversations to critique and potentially question that knowledge base. The lecturers all considered their disciplinary field to be valuable and wanted to convey knowledge of the discipline beyond merely 'facts'. They also wanted to support students in understanding how knowledge in their discipline had developed. This is particularly evident in Rod's comments in relation to the Interdisciplinary Logic MOOC about the importance of presenting logic knowledge as not settled but evolving:

> …there is the sense that often the way that logic is taught in service courses is as a tool or skill, completed science and you go away and use it. And that's not wrong but that's not all there is. So we do want to get people a sense that these are kinds of things that were discovered and invented and this result that we'll be talking about was formulated and understood in the 1950s and before that people did not know this. And so having a sense that these kinds of things are things that we are figuring out, learning. (Rod, Interdisciplinary Logic, Interview 2)

In all the cases the sense of the discipline being conveyed was about seeing knowledge as evolving rather than only about structure, ways of knowing, and appropriate questions. This emphasis on the discipline and its knowledge base as open and evolving points to the ways in which study *within* disciplinary frames can offer openness, rather than simply a rigid predefined frame. This perspective orients students to see the bigger picture about how disciplinary knowledge evolves and the shifts and developments that are part of that process.

In comparison, at TechU, while the lecturers' selections were also informed by a particular sense of what matters within their fields, this was not made explicit in the curriculum materials. Compared with the lecturers located within the disciplines at SandstoneU, the TechU lecturers were also far less inclined to make the ways of thinking underpinning their field a particular focus of the subject. None of the TechU subjects included explicit identification of the 'way of knowing' about the field or a shared way of understanding what knowledge matters in the field. This knowledge was assumed and implicitly embedded within the subject design.

Differences between the disciplinary and professional field case studies were also evident in how the lecturers saw issues of student engagement. At SandstoneU, all

the lecturers wanted students to be actively engaged in their subjects, to be active learners. However, in contrast to the university leaders' interpretations of student engagement as about 'being active' and 'doing things' (Chap. 5), these lecturers were most concerned that students were interested in the content itself. These lecturers had been selected to develop subjects for the unbundled online initiatives because they were recognized as good teachers or particularly interested in teaching. All of them, as a result, highly valued teaching and emphasized students' active engagements and the importance of taking students' pre-existing ideas seriously. However, none of these lecturers saw issues of student engagement or interest as driving their content selections. Instead, they were primarily driven by the internal logic and norms of their discipline. Thus, although lecturers valued student engagement, at the same time they were concerned with trying to induct students into their discipline.

In contrast, while the TechU subjects were oriented toward particular vocational purposes, the lecturers' key reference points of thinking about their content selections were strongly informed by generalized understandings about what matters and what students need and can cope with in their chosen profession. This is captured in the following comments introduced in Chap. 7:

> …if you're a student who is working full time or have got family commitments, you need to get through the course in, human nature, the quickest way possible […] it might be really nice for us to give them an x number of readings, and x number of videos but you want the simplest way because you just want to pass this [subject]. It's just a Bachelor's degree and that's lots of conversations we keep having, it's just a Bachelor's degree, it will be built on and we just need to make sure that by the end of the degree they've demonstrated everything as opposed to in a second-year literacy [subject]. (Tara, Teacher Education, Interview 1)

> as we went along we started to simplify it and break it down. Where now it's literally, here is the little summary and the summaries are much shorter as well, whereas it used to be like a five sentence summary, now it's a two sentence thing […] [Because] in reality if I give them three peer reviewed articles to read every week, they're just going to drop out by week three. It's just completely impractical because they'll be bored. […] this scares me to say it, but some people don't have enough literacy to be able to navigate through an academic article. That's really the bottom line of it and you have to account for it. (Leah, Supply Chain Management, Interview 1)

As these comments show, these lecturers were happy to conform to requirements to limit weekly content to keep students engaged. They were concerned that providing students with too much difficult content or un-curated discussion would be too challenging for the anticipated student cohort. Although they wanted their students to think critically about complex problems and actively engage with the content taught, they also related the issue of student engagement to students' capabilities. The rationales they gave for reducing content tended to focus on a generalized idea of what a student might be able to cope with to stay actively engaged rather than connecting this with the particular purposes of their subject. This differed markedly with the challenges the SandstoneU lecturers saw in reducing the content load of their subjects, which is discussed further below.

Overall, differences between disciplines and professional fields were visible in how the lecturers approached their teaching, including a stronger emphasis on the

disciplinary way of knowing (its key questions, methodologies, and the like) across the subjects located within the disciplines, and less attention to generic engagement agendas in the professional fields. These differences highlight the continuing importance of earlier arguments about the different orientations and authority relations of disciplines compared with professional fields (e.g. Becher, 1989; Bernstein, 1996; Karseth, 2006), and provide examples of how these differences emerge within curriculum development.

The differences shown also point to the continuing significance of the knowledge field in how curriculum development is approached within universities. Trowler et al. (2013) argue that disciplinary norms are becoming less important in the conversations occurring around the development of new programs as marketing and other 'outward-facing' considerations take precedence. Yet, while this may be true in many respects, the cases discussed here show the ways in which the substance of what is taught within a program continues to be guided by the particular discipline or professional field in which it is located. For the TechU cases in particular, while generalized concerns are more prominent in the formulation of these subjects, the purposes continue to orient to the particular elements of useful knowledge that are valued in the professional context. These distinctions illustrate the importance of attending to issues of content and purpose (Biesta, 2010) in considering the shifting contexts of knowledge in disciplinary and professional fields.

8.3 Unbundling and the Differences Between Disciplines and Professional Fields

Differences were also evident in how the lecturers located within disciplines and the lecturers located within professional fields experienced developing curriculum for the unbundled online initiatives and the associated challenges they recognized in relation to that. This was particularly evident in the ways institutional aims to reduce curriculum content challenged those located in disciplines more than those in professional fields. While the lecturers located in professional fields at TechU had no issues with a model that restricted content to overview summaries, those located in disciplines at SandstoneU tended to see content reduction as a far more difficult issue which could undermine their subjects because disciplines are complex and tied to a larger body of knowledge, rather than a limited set of content or process concerns. For the discipline-based lecturers, the amount of content included was seen as significant since the detail and particulars remain important and content cannot easily be replaced by broader themes or outcome statements without changing the wider purposes of the given subject. This was evident in the following quotes from Chap. 6:

'trimming [the discipline offerings] down will diminish it quite substantially'. (Debra, Interdisciplinary Logic, Interview 1)

there's quite a volume of material, kind of reading. There's a volume of information that they need to manage in order to actually bring to bear the various skills and to apply the evidence to do the learning and to do the work. (Laurie, Classical Studies, Interview 4)

These lecturers were concerned about the potential for the imperative to reduce content to undermine what was valuable about their subjects, rather than simply highlight what was most important. In contrast to the arguments of the university leaders, these lecturers saw content as important and not necessarily able to be reduced without transforming the purpose of the subject.

The different cultures, histories, and power of the different institutions and the lecturers located within them also made considerable difference in the effects of unbundling on how curriculum was constructed within the case study subjects. At SandstoneU the lecturers located in the disciplines pushed back against the institutional emphasis on content reduction and developed their own subjects in ways which maintained the content depth and breadth they saw as important, including by incorporating new features and additional materials within their subjects. In developing subjects for students lacking a background knowledge, they strengthened rather than downplayed the explicit teaching of disciplinary methods and ways of understanding disciplinary problems. In comparison, the TechU lecturers were predominantly happy to abide by management specifications and to change their typical approaches to curriculum development to what the university leaders wanted. These differences point to the stronger influence of outside intervention on professional fields (Becher & Trowler, 2001), as well as the unequal power of lecturing staff at senior and junior levels and between different types of institutions.

There were also differences evident between the lecturers developing MOOCs at SandstoneU and the challenges they faced in conforming to rigid platform requirements. The SandstoneU lecturers developing the Behavioral Ecology MOOC faced particular challenges in keeping students on track in the forum discussions (discussed further in Chap. 6). These lecturers were explicitly concerned with engaging with students' ideas and challenges to disciplinary concepts and invited students to question and challenge the subject content. However, students responded to this in ways that the lecturers found challenging and which went beyond what they were encouraging students to engage with. These experiences point to the problems unbundling raises for dealing with complexity and debate. The lecturers developing the Behavioral Ecology MOOC wanted their students to engage with and challenge what was taught, but they also wanted them to respect disciplinary parameters. However, these aims were challenged by the unbundled form of the MOOCs, where there were too little opportunities for the lecturers to engage with students' own concepts and understandings in constructive ways. As these lecturers' experiences show, working within the constraints of unbundled online initiatives is a genuinely difficult task and not one which is easily resolved when there are limited opportunities to engage with students in meaningful ways.

In comparison, the SandstoneU lecturers developing the Interdisciplinary Logic MOOC were far more concerned with developing students' understandings of core logic rules and processes and focused the video lectures and additional materials

predominantly on clear rules about what logic knowledge looks like and how it can be practiced. These latter emphases may be why these students' discussions remained within the parameters of understanding the content being taught rather than questioning it.

Here, the rigid sense of what counts captured within the videos and multiple-choice assessments was better suited to the agendas of lecturers in disciplines where there was a very strong degree of paradigmatic consensus, rather than in disciplines where there was more divergence or openness to the subject knowledge. As with the issues discussed previously in this section, this demonstrates the different implications of particular configurations and requirements for different fields and the need to address and be mindful of this in how new initiatives are implemented.

8.4 Institutional Policies and Differences Between Disciplines and Professional Fields

A number of theorists have pointed to a tendency for universities to undermine disciplinary knowledge and privilege generic vocationally oriented agendas (Karseth, 2006; Muller, 2009; Young & Muller, 2015). Muller and Young (2014) argue that while university leaders and policies tend to pay lip service to the importance of disciplinary knowledge, in practice there is a tendency to neglect the conditions required for such work. They note that the focus in teaching strategy is almost entirely on the 'know how' or pedagogical requirements of the curriculum in ways which obscure 'the curriculum requirements of the conceptual knowledge – its requirements for sequence, pace, progression, and level of difficulty' (Muller & Young, 2014, p. 137).

One of the questions raised by those who express concern about the future of disciplinary forms of knowledge is whether the norms and values of professional fields (in terms of the use-value of curriculum content) are becoming more predominant (Bernstein, 1996; Karseth, 2006; Muller, 2009). There were some signs of this at the institutional level, with leaders at both universities emphasizing content reduction and structuring curriculum in relation to predefined educational outcomes (discussed in Chap. 5). Across both universities, there was clear a lack of acknowledgment of the importance of distinctive purposes and teaching practices of different disciplines and professional fields, and a lack of attention to how these may have different implications for what kinds of pedagogy, curriculum structure, and assessment are appropriate. The policy intent was to enforce or encourage a particular approach to pedagogy as beneficial across the range of subjects included within an initiative (as well as beyond that). This included subjects deriving from different disciplines from both the sciences and the arts as well as professional fields, which are traditionally understood as distinct in terms of their purposes and orientations, and in the ways in which knowledge is built (Becher & Trowler, 2001; Bernstein, 1996; Muller, 2009). The university leaders framed best practice in terms of generic concerns related

to content reduction and active or constructivist pedagogies, rather than in terms of specificity and context, without considering the ways in which their aims and agendas might work differently for lecturers teaching in different disciplines and professional fields, where the amount of content to be taught is not simply a pedagogical decision (Muller, 2009). The reduction of content was only seen in relation to concerns about student motivation and engagement and was not seen by the university leaders to affect the broader purpose or outcome of the subject. Trowler et al. (2013) argue that disciplinary norms are becoming less important in the conversations occurring around the development of new programs as marketing and other 'outward-facing' considerations take precedence, and this was evident in the institutional policy level perspectives.

In debates in the literature (Chap. 4) there tends of be an over-binary discussion about shifts away from disciplinary knowledge, with disciplines understood as either supported or not supported within universities today, and as remaining important or being usurped by new ways of thinking and structuring knowledge (see Yates et al., 2017). Yet the reality experienced in both case study universities was not either/or. Many of those lecturing in universities are not uncritically implementing institutional agendas and they remain oriented to their discipline's particular way of knowing. Different lecturers are, however, more or less likely to resist institutional agendas depending on the strength of their disciplinary or professional identities, their seniority and employment security, and their institutional location. Inherent differences are evident between disciplinary and professional forms of knowledge, with those located within the former more oriented to a bigger and ongoing field of inquiry. However, these distinctions are also being undermined within a policy context that is oriented to sameness and singular ways of framing 'best practice' and 'good teaching', and in which the complex relations between curriculum and pedagogy have been ignored or overlooked.

8.5   Conclusion

The experiences of the SandstoneU and TechU lecturers in developing curriculum for unbundled online learning initiatives highlights important differences between disciplines and professional fields. The SandstoneU lecturers maintained a strong orientation to the internal logic and rules of their disciplines and emphasized the importance of attending to these parameters within curriculum. For these lecturers, the amount of content in their subjects was significant since the detail and particulars remain important, and content cannot easily be reduced to broader themes or outcome statements. Comparatively, the TechU lecturers were oriented toward the specific requirements of their respective professional fields and the development of particular understandings and practices. Their strongest reference point was about what is known to be useful in the workplace, creating more flexibility about the amount of content and the structure of the curriculum.

These differences highlight the continuing importance of arguments about the different orientations of disciplines compared with professional fields (e.g. Becher, 1989; Bernstein, 1996; Karseth, 2006) and show the particular ways in which these emerge within curriculum development. They also demonstrate that in contrast to arguments that distinctions between different forms of knowledge no longer hold as disciplinary boundaries break down (e.g. Trowler et al., 2013), in aims and purposes the differences between disciplinary and professional subjects remain broadly evident, at least in the particular cases considered in this research. The knowledge field continues to matter in curriculum development in relation to both issues of structure and substance and in terms of broad distinctions between disciplines and professional fields.

Yet the framing of the unbundled online initiatives by the SandstoneU and TechU university leaders suggest these differences are potentially being overlooked at the institutional level. At both the universities examined in this book, there was clear a lack of acknowledgment of the importance of distinctive purposes and teaching practices of different disciplines and fields and a lack of attention to the implications of these for the kinds of pedagogy, curriculum structure, and assessment that are appropriate. The university leaders saw content-related concerns as best left up to the individual lecturers, but at the same time also sought to impose particular requirements and to encourage the same pedagogy across different subjects. They framed best practice in terms of generic concerns related to content reduction and active or constructivist pedagogies, rather than in terms of specificity and context, without considering the ways in which their aims and agendas might work differently for lecturers teaching in different knowledge areas. These issues are particular to the cases considered but they potentially point to wider issues in how university teaching strategy is conceived (Muller, 2014). The lack of alignment between the university leaders' intents and the resultant subjects in these cases demonstrates the challenges raised where university strategy does not recognize and work to engage with curriculum implications in the moves toward unbundled online learning.

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Chapter 9
From Constructivism to Clarity and Control

9.1 Introduction

In recent times the question of what counts as knowledge within universities and university teaching has become entangled within debates about constructivism. Within the scholarship of teaching and learning in higher education, many argue that current teaching practice is focused too strongly on content, and needs to move toward more 'constructivist' approaches in which students' own constructions of knowledge are centered, and learning is 'active' rather than passive (e.g. Barr & Tagg, 1995; Biggs & Tang, 2011). Constructivism is a broad church, and encompasses a range of theoretical traditions. However, collectively, theories associated with a constructivist tradition emphasize the ways in which understandings of knowledge cannot be separated from understandings of the ways in which knowledge is produced, engaged with, and constructed by people within particular contexts and at particular times. Common across them is an emphasis on ensuring teachers account for and engage with students' own pre-conceptions and understandings, in ways which suggest there is a need for some openness in terms of how curriculum is preformulated and how lecturers engage with students (Davis & Sumara, 2010; Sjøberg, 2010). Within a constructivist framework, curriculum content is not understood as solely defined in reference to students, but teachers are expected to take students' existing ideas seriously, and there is a presumption of accounting for difference across and between cohorts of students. However, despite a broad endorsement of constructivism within the higher education literature, there is little agreement about what constructivism is and should do within this context. Concerns have been raised about simplified interpretations of constructivist teaching and what this looks like in practice (Loughlin et al., 2021; Schoepp, 2019; Sjøberg, 2010) and about the appropriateness of constructivist pedagogies across different teaching purposes and knowledges (Biesta, 2010, 2014, 2017; Young & Muller, 2015).

This chapter considers the SandstoneU (Chap. 6) and TechU (Chap. 7) case studies in relation to the aims of the university leaders to encourage active learning and constructivist pedagogies (Chap. 5). The chapter discusses the leaders' framing of

issues of knowledge and curriculum and the inherent contradictions evident. It also explores the lecturers' approaches to curriculum for the unbundled contexts and the ways this worked against the intent to incorporate constructivist pedagogies. The chapter argues that these cases highlight the emergent problems that arise where institutional commitments to constructivist pedagogies are conceived in ways which overlook the conditions required for its practice. The lack of alignment between intent and pedagogy demonstrated here is particularly problematic in unbundled contexts where the curricular and pedagogic tasks and responsibilities are separated.

9.2   The University Leaders: Tensions and Contradictions in the Aims to Encourage Constructivist Teaching

Encouraging student-centered, constructivist teaching was identified as a key aim of experimenting with unbundled online learning at SandstoneU and TechU (Chap. 5). In their justifications and rationales for the new initiatives, leaders from both universities emphasized the potential of unbundled online initiatives to encourage new teaching practices and promoted constructivist pedagogies and active learning as best practice. There was also either an implicit or explicit dichotomizing of constructivist and/or activity-based forms of teaching (viewed positively as best practice), compared with 'instructivist' and lecture-centered forms of teaching (viewed negatively as poor practice) (cf. Barr & Tagg, 1995).

In the interviews and documents discussed in Chap. 5, however, a number of issues emerged with how this aim to encourage student-centered, constructivist teaching was framed and how this was put together with other agendas. First, active learning and constructivist pedagogies were positioned as best practice regardless of the purpose of the educational situation, the content being taught, or the disciplinary structures in which the subject is located (cf. Biesta, 2017). In dislocating the understandings of good pedagogy from the purpose or content of the subject, the interpretation of what constructivist pedagogies or active learning looks like tended to be devoid of meaning. Instead, the aim became about making sure students were active and 'doing things', rather than acknowledging the particular purposes at play or the connections between what is being learned and how that is developed. This suggests student 'busyness' was valued over a consideration of the substance of what was to be learned or constructed conceptually. At TechU in particular, 'activities' were not understood as necessarily connected with particular content or purpose and all forms of activity were given the same sense of value. This meant that no distinction was made at the institutional level between finding and sharing an article, with providing some form of constructive comment or argument about the ideas embedded within that (see Chaps. 5 and 7). Leaders were also critical of a perceived tendency for lecturers to overload their subjects with content and encouraged a reduction in content in the unbundled online subjects with little regard for how this might affect the different purposes of particular subjects. From a technological perspective, the need to reduce content was strongly

emphasized by management and the platform staff in the directions they gave about curriculum development and the appropriate use of the platform, and this advice was given regardless of the subject discipline or purpose.

The approach to curriculum promoted via the unbundled initiatives also tended to focus on predefined content in ways which positioned curriculum knowledge as fixed and stable rather than negotiated within classroom spaces. Across the different platforms, all subject materials, including pre-recorded video lectures; activities; discussion questions; additional explanatory material; and assessment tasks, were expected to be developed in full prior to the teaching period. This predefinition was framed as a key benefit by the university leaders in encouraging an alignment-driven, outcomes-based approach to curriculum design (cf. Biggs & Tang, 2011). Subject design was seen to ideally start with learning outcomes and assessment tied to those outcomes, with the rest of the subject mapped back to build toward the desired outcomes. University leaders also gave the impression that they saw curriculum content as fixed and stable, and assumed the substance of curriculum required little change between different iterations and cohorts of students.

In addition, the university leaders tended to assume the content and purpose of curriculum was unchallenged by the online format, and there was little consideration of the potential effects on this of the new pedagogies required, the new attention to outcomes that were encouraged, or the modularized subject structure. The curriculum itself was generally not understood as reconfigured by this process but was presented as relatively stable, in opposition to Bernstein's (1976) arguments about the complex relations between curriculum and pedagogy (Chap. 3). At both universities, the potential for a new approach to transform the core substance of a curriculum program, beyond the loss of expendable content, was not raised as a possibility in any of the interviews with university leaders or in university policy materials. The changes the university leaders expected to occur in moving subjects into the unbundled online form were significant in encouraging alignment and active learning approaches. However, they did not see these as transforming the actual make-up and purposes of the subjects in any meaningful way. Instead, the new approaches were seen to refine or pinpoint what matters, rather than transform that in ways which might reconfigure the knowledge field and what is represented as important within the curriculum.

The university leaders' inattention to content and purpose was also evident in their views on MOOCs and the benefits of using the data which could be extracted from the MOOCs platform to understand student learning and engagement. This use of platform data or 'learning analytics' has been critiqued for its underpinning assumptions about learning and education. These include assumptions that learning is individualized (or at least captured collectively by the minute actions of individuals), and that its 'effectiveness' can be captured independently of purpose or values, and that data on the minutia of student actions can have something to say about what matters educationally outside of that specific context (Bayne et al., 2020). The belief in the value of this data begins from an assumption that context—including who students are, where they are coming from, and what they are building toward—does not matter and that the number of unique downloads on a given video lecture can say

something about student motivations that can be abstracted from the broader context of the teaching. Focusing on this data means that understanding what motivates or engages students becomes about whether students are active or not as indicated by the number of videos they watched or the number of the number of forum comments they posted.

The university leaders' focus on outcomes and predefinition of content also worked against their aim to promote constructivist pedagogies. An attention to outcomes—or in other words, thinking through where students are expected to get to at the completion of the subject—is not in itself contrary to a constructivist approach. However, within the two universities, the ways in which the unbundled form of the initiatives restricted interactions between teachers and students pointed toward issues for how these concepts were brought together. Constructivist theories tend to be premised on strong relations between teachers and students, and understandings of learning and knowing as necessarily connected to students' own histories and experiences (Sjøberg, 2010). However, there was little acknowledgment at the university level of how diverse student histories and understandings might be engaged with and little apparent concern with how such characteristics might be undermined within unbundled online initiatives that inhibit educational relationships between lecturers and students.

This points to limitations in how constructivist pedagogies were understood at the university level. As Davis and Sumara (2010, p. 490) explain, constructivist theories, while diverse, commonly challenge the separation of what is taught from how one is taught and run against the suggestion that content or tasks are able to be selected independently of learners, understanding curriculum as arising in the moment of engagement rather than as 'any sort of deliberate constructive practice'. Within a constructivist framework, therefore, curriculum content is not understood as solely defined in reference to students, but teachers are expected to take students' existing ideas seriously, and there is a presumption of accounting for difference across and between cohorts of students. Similarly, Biggs and Tang's (2011) advice for lecturers presumes that lecturers formulate their outcomes and their pedagogies together in line with their own particular purposes, contents, and contexts. The approach imagines a lecturer engaging with students and advocates for teaching approaches which allow for the emergence of 'unintended but desirable outcomes' (Biggs & Tang, 2011, p. 11) in addition to predefined outcomes.

The university leaders' assumptions about constructivist pedagogies embody some of Biesta's (2010, 2014, 2017) arguments about the insufficiency of the current 'learnification' approach to education to adequately address questions of educational desirability and purpose. Learnification refers to 'the rise of new theories of learning that have put emphasis on the active role of students in the construction of knowledge and understanding and the more facilitating role of teachers in this' (Biesta, 2010, p. 17). In opposition to this perspective, Biesta (2017) argues that education is never just that students learn, 'but always that they learn something, that they learn this for particular reasons, and that they learn it from someone' (p. 28). He contends that the 'language of learning' constructs education as a 'process' in ways which are '"open" or "empty" with regard to content and purpose' (ibid.). The SandstoneU and

TechU university leaders' approaches to constructivist and active learning pedagogies reflect these issues. Leaders at both universities were concerned with making sure students were active and 'doing things', rather than concerned with understanding how students know and learn particular things for particular purposes. They promoted a mainstreamed, common approach to teaching, informed by generalized ideas about what interests and engages students (doing things, interacting with each other) and what students are capable of. They were concerned with being student-centered but this was less about attending to who students are and more about a generic sense of what motivates and engages students and what keeps them on task. Keeping students engaged was framed as a general concern rather than about engagement with particular content or concepts. The emphasis was on engagement as an end in itself, rather than as a means for achieving a broader educational purpose.

One concern raised in wider debates about constructivism has been about whether such work has focused too strongly on social aspects of learning, and as a result led to a devaluing of the epistemic (e.g. Green, 2010; Nerland et al., 2010; Young & Muller, 2015). The case studies examined in this book suggest that such concerns potentially have some merit, with the interest in constructivism leading to an emphasis on student interactions, but not on the ways in which students are being asked to substantively engage with knowledge. This highlights the importance of considering university teaching in relation to the substance of what it produces and orients toward, rather than in terms of a simplistic reading of what constructivist teaching entails.

9.3 The Lecturers' Experiences: Moving Toward Clarity and Control

These tensions in how the university leaders framed their goals for the unbundled online initiatives had implications for the ways in which the lecturers developed their curriculum. At both institutions, while the lecturers' aims for their subjects were oriented to what was distinctive about their fields, their ways of working with the affordances and constraints of the unbundled initiatives were oriented toward issues of clarity and control. Across all the cases, the experience of the lecturers as they worked to enact or construct their curriculum for the unbundled initiatives was to move in a direction that more strongly emphasized subject knowledge as a defined body of content to be taught. Students were primarily directed in ways that were more about fulfilling pre-set requirements than making connections with or building from their own concepts and understandings, particularly at TechU.

In their articulations of the wider subject purposes and content selections, the lecturers emphasized the importance of students understanding the complexity of these fields, and, for the disciplinary lecturers in particular, of seeing the knowledge developed within them as fluid rather than static. Lecturers at both SandstoneU and TechU also emphasized the importance of students' own interactions and knowledge

construction as important in guiding their teaching as evident in the following quotes introduced in Chaps. 6 and 7:

> …we do want to sort of encourage critical thinking and a skeptical view about whether or not things represent good evidence or bad evidence. (Matt, Behavioral Ecology, SandstoneU, Interview 1)

> I think as the instructor you've got to resist the temptation to step in and provide the definitive answer because I think you're going to discourage learning that way. […] I'm wary of posting something that will kill off the discussion because people go 'oh the instructor posted this and so therefore my view must be wrong or invalid'. (Matt, Behavioral Ecology, SandstoneU, Interview 3)

> [you want] to discuss things in detail, to get their feedback, to get them working on a particular version, try and restrict how much you do but don't splinter that effort, don't dissipate the depth that they can go into it. (Laurie, Classical Studies, SanstoneU, Interview 2)

> you have to be able to talk back and […] be given the skills to actually argue back and talk to things because […] [otherwise] we're not empowering teachers to actually digest and unpick the reasoning behind that framework. (Tara, Teacher Education, TechU, Interview 2)

> [They need] to think critically, especially when they're so used to going 'here's a problem, here's how I solve it' and not necessarily being in a habit of rationalising or justifying 'why do I think this is a good solution for this problem'. (Leah, Supply Chain Management, TechU, Interview 1)

However, as they came to work on the actual constraints of the platform, these elements were far less apparent in their thinking and decisions about content delivery and curriculum structure. Content for the unbundled online initiatives was primarily delivered by video lectures (at SandstoneU) or by weekly summaries (at TechU). The lecturers at the two institutions differed with how they approached the issue of clarifying content for students, with those at SandstoneU focused on enhancing the structure and adding extra explanatory material to their subjects, and those at TechU predominantly focusing on reducing content to maintain student engagement and using activities to scaffold toward assessments. Across the case studies, content was positioned as predominantly self-contained, capturing the entirety of what students were expected to engage with and comprehend, with a weekly focus on the explicit identification of the key messages and concepts in the subjects.

At SandstoneU, where the initiatives were video-based, the lecturers designed each video to capture an individual point in a more streamlined and refined way than a typical lecture discussion. In developing these short single-concept videos, the SandstoneU lecturers were highly focused on the order of their content and the ways in which segments of content could be better sequenced to enhance the clarity of the material. In the interviews, they reported focusing more on structure in developing their online subjects than they would for on-campus subjects and saw this as a result of the more detailed process required to select and prepare content for short videos compared with hour-long lectures. These lecturers also spent considerable time scripting the content for their videos and felt this was necessary to avoid 'rambling' (Matt, Behavioural Ecology, Interview 1), and to 'tighten' and make 'efficient' (Rod, Interdisciplinary Logic, Interview 2) the delivery of content. Here, the

emphasis was on refining the content and in making sure it captured everything the students needed to understand within the tight parameters of the short video format. The SandstoneU lecturers were also concerned with making their subjects self-contained and capturing all necessary content within the subject materials. The lecturers developing the Interdisciplinary Logic and Classical Studies subjects added substantial amounts of further explanatory material in addition to their subjects and the Behavioral Ecology lecturers also included the important content from every lecture of their on-campus subject within their MOOC. For Interdisciplinary Logic, Debra developed detailed subject handbooks containing all the additional explanations not able to be worked into the short videos, and for Classical Studies Laurie added additional 'flipbooks' of slides containing the information necessary to understand the videos, including references to particular myths and translations of key terms.

The TechU lecturers were also highly concerned with issues of clarity. This led them to reduce their content and focus only on the most important messages and concepts. Grant, for example, emphasized the importance of making sure the content he brings to the first meeting with learning designers is only at the 'skeleton stage', and commented that only after that would he 'be thinking about particular content that needs to put some meat on the skeleton content' (Grant, Sports Management, TechU, Interview 1). Tara also noted, 'we don't like to bombard the students with a large amount of text on screen' (Tara, Teacher Education, TechU, Interview 1). Leah likewise commented that this reduction of content was about focusing on what was core rather than peripheral to a subject. She stated, 'I do try to take it back to basics, not dumbing it down as such but just going really back to the basics of that particular topic, what do they have to know' (Leah, Supply Chain Management, TechU, Interview 1). As with the SandstoneU subjects, the focus was on defining the most important content and concepts for students, and in making that as clear and explicit as possible, rather than embedded within long swathes of text. However, here there was more of a sense that the overall content and concepts to be covered was more malleable and more easily able to be reduced to conform with policy expectations. These lecturers' curriculum development was also strongly informed by an attention to scaffolding and alignment, and they designed their content and weekly activities to build toward the required assessment tasks. In line with outcomes-based approaches to curriculum design (Biggs & Tang, 2011), they were concerned with ensuring that the content of a given subject mapped toward predefined outcomes, focused on identifying the important content to be learned, and ensured key points were adequately covered and developed within the subject content.

In comparing their experiences developing curriculum for on-campus compared with online delivery, the lecturers at both universities pointed to the importance of reducing ambiguity and making content more explicit for the online context. At SandstoneU, Debra commented on the importance of 'being more focused and sharper' in her video lectures, as without that there is the challenge that 'the students can lose the point of what's the most important thing' (Debra, Interdisciplinary Logic, SandstoneU, Interview 2). At TechU, Grant likewise noted that as he is not involved in the teaching of content, the text he develops 'has to be put into context and the use

of text has to be very careful that there's not ambiguities in the information that's presented' since there are not the same opportunities to explain those face to face within the TechU Online platform (Grant, Sports Management, TechU, Interview 1). In comparing her experience developing subjects for TechU Online to her on-campus teaching, Leah similarly stated that she felt for on-campus teaching 'there's not such a need to be so explicit' compared with developing online materials (Leah, Supply Chain Management, TechU, Interview 1). Lecturers also spoke about the ways in which this concern with clarity led them to focus on singular explanations of key messages and concepts, rather than addressing a concept via multiple explanations:

> …there's a lot of freedom if you like the way you might present those lectures [in face-to-face on-campus teaching] and in particular given that you will probably explain a concept in three or four different ways during the course of a lecture […] You simply can't do that in these lectures [the videos]. The students scrutinize everything. (Ethan, Behavioral Ecology, SandstoneU, Interview 3)

> I think designing for [the TechU OPM initiative] is probably a little bit different to designing for an on-campus course because you've got […] the limitations of the fact that students are remote, so you need to give them information in really bite size chunks. Whereas in a classroom environment you can make it a little bit broader and also introduce multiple perspectives. I think students struggle with that a little bit in an online environment. (Leah, Supply Chain Management, TechU, Interview 2)

They tended to see single and precise explanations as important in making their subject messages clear and comprehensible to students in the online environment and saw students as more likely to be confused by multiple explanations.

Due to the unbundled mode, at both SandstoneU and TechU curriculum decisions were required to be developed in full prior to teaching and there were limited opportunities for lecturers to engage with and respond to students within the teaching of the subjects (with the exception of the Classical Studies subject for SandstoneU OPM initiative, which included a tutorial component). This requirement for content to be predefined and self-contained contributed significantly to the emphasis on clearly defined content because it meant the lecturers paid close attention to the communication of their subject materials, since the opportunity for additional clarifications, explanations or responses to student questions and interpretations was limited. These lecturers confirmed the views of the university leaders in seeing part of the process of developing the new videos as about distilling what was most important from their material and reducing unnecessary repetition. However, this was different from what these lecturers conveyed when talking more generally about their aims, where they valued addressing concepts in different ways, and saw repetition as not simply redundancy.

Comparatively, at TechU there was also a concern about providing clarity and non-ambiguity for students, but in a way that was more self-contained within the outcomes-based focus of the curriculum agenda. Here the lecturers said that they felt the focus on scaffolding and alignment strengthened the subjects by providing enhanced clarity for students. Tara for example commented that she felt the approach was more 'transparent and accountable' than face-to-face teaching as it meant 'you're able to say "alright this is what we'd like the end result to be" but look at what they

can do in the meantime, how they can get there' (Tara, Teacher Education, TechU, Interview 1) and as a result encouraged more 'detailed' thinking about 'how does this build' (Tara, Teacher Education, TechU, Interview 2). What the lecturers liked about the new format was the ways it made them 'sharper' and 'more focused', and the ways this then presented a clearer and more explicit summary of the material and what was expected for students.

In talking about the effects of the developing curriculum for an unbundled online mode, the lecturers tended to be highly positive about the ways in which the unbundled online format encouraged them to make the content explicit and well defined. At SandstoneU, the lecturers highly valued the ways in which the new format encouraged them to think deeply about the sequence and order of their materials and about the best way to explain particular points, saying this led them to rethink what they might have taken for granted in the past. They commented that in comparison to their typical hour-long lectures, the shorter video format helped them to focus more critically on the core content and to sharpen the content and clarify what matters for students as a result.

In addition to their focus on explicit content and the reduction of ambiguities, the lecturers were also highly concerned with prescribing and directing student activities and discussion, and with creating assessments with clearly defined expectations and instructions. Across the subjects, the approach taken to the discussion boards and activities tended to be more template-driven and directed toward the predetermined outcomes and the assessments rather than oriented to students' developing their own constructions of knowledge. In developing curriculum for students with whom they would not interact, the lecturers worried about students misinterpreting activities which were too open and focused more on prescribing defined tasks for students that linked explicitly with their assessment tasks than on opening up broader discussion spaces.

At TechU, the lecturers were highly concerned with prescribing and directing student activities. Within TechU's unbundled online initiative, student activities were designed by the lecturers and interactions were then moderated on student discussion boards by online tutors. In working with a platform which afforded the lecturers no interaction with students beyond the development of subject materials, they tended to provide comprehensive directions to the online tutors to ensure the activities and discussions proceeded as intended. Each of the lecturers drafted additional notes for those tutors which directed them regarding where the discussion generated by the designed activities should go and what kinds of issues should be emphasized. Tara, for example, commented that this level of detail was because she was concerned that the tutors would not 'understand the bigger picture of the degree' and 'might take the 'tone of the unit in a different way' (Tara, Teacher Education, TechU, Interview 2). Leah similarly commented that her approach to online discussion tends to be more 'standardized' and strongly directed than in on-campus (Leah, Supply Chain Management, TechU, Interview 1). Across all three subjects, the use of the discussion boards was far less open than the policy rhetoric about student discussion and social constructivism might suggest. The approaches taken by the lecturers tended to restrict activities to what could be most easily directed, rather than what might be

the most important substantive issues to engage with or discuss. At TechU university leaders were concerned with both alignment and constructivist teaching, and wanted to bring the two together in constructive ways. However, the lecturers in developing their curriculum were more concerned with issues of alignment and tended to focus predominantly on ensuring activities built toward predefined outcomes and assessments, rather than on more open engagements. These practices point to the ways in which an attention to alignment and outcomes can undermine other agendas (Young & Muller, 2015).

At SandstoneU the lecturers developing the SandstoneU MOOCs appreciated what the discussion forums offered as spaces where students could engage in ways that went beyond simply learning the content captured within the video lectures. However, they also saw students' engagements as most valuable where that discussion focused on the video lectures and on correcting student misconceptions which might arise from that, struggling with instances where students took the discussion in different directions. Despite wanting the students to engage in broad ways, they were concerned with ensuring the discussion adhered to their established purposes and in their interpretations of the possibilities of the forums focused less on student interpretation and knowledge construction than on the reduction of misconceptions, and the further explanation of the defined content.

These issues were also evident in relation to the lecturers' assessment practices. At TechU the lecturers' approaches to assessments were focused on providing students with clear rubrics and templated instructions, and with ensuring assessments were closely tied to the defined subject outcomes. Assessment tasks tended to be self-contained and there was little which asked students to go beyond what they were given in formulating their thinking.

For the SandstoneU MOOCs only two options for marking assessment were available: automated marking of responses to multiple-choice tests or peer assessment of responses to short or long form responses. Here, the lecturers developing these MOOCs commented on their struggles with working with these new forms of assessment, and how they were required to change the assessment approaches they would typically take with their on-campus teaching. In taking up these new forms of assessment, the lecturers developing the SandstoneU MOOCs focused on explicitly identifying for students the markers for success and controlling the parameters within which students could respond. This approach reinforced a sense of knowledge as defined content to be learned. While this was not completely against the lecturers' purposes for their subjects, since both require understanding of core concepts, it did shift the emphasis of the subject away from the lecturers' aims to have students understand the knowledge of their discipline as evolving and contested. Instead, the emphasis was on students learning the content as taught rather than on questioning or engaging with that content more comprehensively.

When the SandstoneU lecturers talked about benefits of peer assessment, for example, they emphasized the learning that could occur from the process of marking another's work. However, this learning was seen to be about predefined content rather than interpretation or knowledge construction. Rod (Interdisciplinary Logic), for example, commented, 'You learn the content better by being able to tell whether

this is a good answer or that's a good answer' (Rod, Interview 3). Matt and Ethan (Behavioral Ecology) also used peer assessment in their on-campus teaching and Matt noted that one of the reasons he was interested in this was because 'it's broader, it takes into account difference of opinion, it's symbolically not investing me as a teacher with all the power and all the authority and all the wisdom […] [and it provides] the benefit of arriving at a mark that is potentially a truer reflection than the opinion of a single individual' (Matt, Interview 2). These comments are significantly different from the approach Matt and Ethan took within the MOOC, where they saw concerns about validity as more important.

With the exception of the Classical Studies case study (SandstoneU), where the lecturer did engage synchronously with the students, the lecturers' approaches to student activity and assessment were highly prescribed and oriented toward predefined and rigid rather than open end points. For the assessments in particular, the lecturers tended to either focus on criteria which could most easily be codified or criteria which was objectively quantifiable and definably right or wrong rather than allowing for some fluidity and complexity. These approaches tended to limit the space for student interpretation and restrict the possibilities for students to engage with the content taught in complex ways. In developing assessments and activities that would be assessed and moderated by others, the lecturers were all concerned with making the expectations clear and communicable to both students and tutors, and were concerned with ensuring that those marking the assessments and moderating the student discussions did so in the way that the lecturers intended.

Bernstein (1976) draws attention to the ways in which the form in which content is delivered is about control, arguing that subjects can be analyzed in relation to the degree of control teachers/lecturers and students possess over the selection, organization, pacing, and timing of the knowledge taught. Within the unbundled, predefined form of these subjects, almost all the control over what is taught and the sequence in which that is taught lies with the lecturer or the constraints of the new platforms, with the student expected to work within those predefined parameters. While many of the lecturers articulated a desire to engage with students' own contributions and concepts in ways which positioned knowledge as something negotiated with students and wanted students to understand knowledge in their field as open and evolving, these understandings of knowledge were significantly diminished in the lecturers' discussions of assessment and student activity. As Biesta (2014, p. 1) argues, education is necessarily about risk 'because students are not to be seen as objects to be molded and disciplined, but as subjects of action and responsibility'. Biesta contends that attempts to secure or control the educational process limit the possibilities for students to think otherwise and develop independence. In line with Biesta's critique, the lecturers' approaches to student activity and assessment restricted what was possible and potentially tied students to the predefined requirements, rather than enabling them to take their learning in new directions.

9.4   Unbundling and Challenges for Constructivist Teaching

This discussion of the case study lecturers' approaches to developing curriculum for the unbundled online initiatives highlights the challenges raised by unbundling curriculum development and delivery (Cliff et al., 2020). An unbundled online approach changes not just lecturers' relations with students, but also the ways in which curriculum, pedagogy, and assessment are designed, and therefore what is produced as knowledge within the education (Bernstein, 1976).

While the university leaders had hoped that the unbundled online initiatives might encourage more constructivist teaching and more emphasis on student activities, in contrast, the lecturers tended to see this format as necessitating a greater degree of explicitness and standardization and focused on these issues in their subject development. This was evident across all the cases, including the MOOCs, where the lecturers could only engage with students in limited ways, the TechU subjects, where the lecturers had no opportunities to engage with students, and to a lesser extent, in the SandstoneU Classical Studies subject, where Laurie was able to interact with students via a weekly synchronous class. Compared with on-campus teaching, the lecturers saw teaching in an unbundled online mode as requiring greater direction from the outset since the space for incorporating that in the delivery of the subject was not available. They also saw a need to prepare that direction in a standardized form since there was limited scope to negotiate individually with the students.

The focus on the content to be learned is contrary in some ways to what the university leaders wanted the unbundled online initiatives to achieve and aligns more with their critiques of 'instructivist' approaches to education than with their aims to promote constructivist teaching. There is a focus on defining the content in a self-contained way, without acknowledgment of students' own understandings and constructs. These issues have been raised in broader critiques of MOOCs, which have pointed to their focus on transmission at the expense of students' own engagements and constructions (Bayne et al., 2020; Knox, 2013; Shumar & Wright, 2016).

Although the lecturers at both institutions appreciated the attention to clarity of content, they also saw the unbundled online form as producing a requirement for more explicit teaching and content summarization by limiting the opportunities for other kinds of teaching approaches which might address concepts in a less directive or more complex way. As a result, the lecturers' approaches to content delivery and curriculum structure focused predominantly on defining the content to be learned and making that clear for students by reducing any ambiguities. While there are obvious benefits for students in making content clear and explicit, this emphasis positions knowledge as a predefined and uncontested body of content to be learned, rather than an open or evolving construct. The emphasis is on a defined sense of what is important for students to understand and be able to do which is determined at the outset rather than developed in negotiation with the students.

Focusing curriculum development on 'what students need to know' is not in itself problematic. Teaching, as Biesta (2010, 2014, 2017) makes clear, does need to be about something, but there is an emptiness in focusing only on what students

are expected to do rather than what they are to be taught. However, the degree of emphasis on defining that content and on removing ambiguities in relation to that is questionable and points to the ways in which the move to an unbundled online mode potentially changes not just how a subject is taught pedagogically but also what counts as knowledge (Bernstein, 1976).

9.5   Conclusion

The experiences of the SandstoneU and TechU university leaders and lecturers highlight tensions between the push by university leaders for constructivist pedagogies and the challenges of realizing this in an unbundled context. At the university level, although the leaders aimed to promote a collaborative, engaging educational process, the technology, the mode of delivery, and the cost of making any changes led to a fixed and stable construction of curriculum and little room for students to construct own understandings in ways typically associated with constructivist teaching. At the curriculum development level, the lecturers experienced the unbundled context as changing and narrowing what was possible within their teaching. As they worked to enact or construct their curriculum in these online forms, the lecturers became more didactic as well as more tightly focused on clarifying concepts and expectations for students and moved in a direction that more strongly emphasized knowledge as a defined body of content to be taught. Because this approach reduces opportunities for robust constructivist teaching and tends to encourage a more directive and didactic approach, it undermines lecturers' aims to engage constructively with students' knowledge and to illustrate the evolving and complex nature of knowledge development in their disciplines and professional fields. Students were primarily directed in ways that were more about fulfilling pre-set requirements than making connections with or building from their own concepts and understandings, particularly at TechU. In summary, two key points emerge in relation to the university policy for constructivist teaching and the lecturers' experiences in developing unbundled curriculum. First, unbundled contexts can negate and work against directions and intentions to engage in constructivist teaching. Second, fundamental problems can emerge where institutional commitments to constructivism as a teaching and learning model overlook questions of curriculum design and the complex relations between curriculum and pedagogy.

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Chapter 10
Unbundling, Curriculum, and Knowledge: What is Being Missed?

10.1 Introduction

In 2012, when MOOCs emerged on the global higher education scene there was widespread excitement about their potential to revolutionize higher education. By the end of 2013, however, commentators were already asking if MOOCs could live up to the hype. Early analysis of MOOCs showed the vast majority of enrolled students failed to complete the subjects. MOOC platform founder Sebastian Thrun pronounced his own educational offering 'a lousy product' (Stokes & Gallagher, 2013) and Stanford University president John Hennessy decided that MOOCs were too large to successfully engage and motivate most students (Drake, 2014). In the US state of California, an attempt to require public universities to grant credit for externally offered low-cost online subjects was roundly defeated (Rivard, 2013). The MOOCs moment passed, yet the questions it raised about curriculum and teaching did not.

The mania around MOOCs was focused on their reach and accessibility—that they could offer free education to anyone around the world with an internet connection. Yet this was only one way which MOOCs purported to restructure education. MOOCs also represented a radical unbundling of curriculum and pedagogy, with the curriculum developed in universities and the delivery managed separately, with little to no academic involvement. This unbundled model is also evident in partnerships with online program management (OPM) providers, where subject content is developed by academics within universities, and teaching and/or administrative support is managed by the OPM company. Since the early 2010s, these unbundled forms of online learning have grown exponentially, and this has continued to intensify within the context of the current COVID-19 crisis.

This book has taken a different and novel approach to considering the implications of unbundled online learning, focused on questions of curriculum and knowledge. It has explored how university leaders and lecturers engaged with MOOCs and other forms of unbundled online learning in the MOOCs heyday of the early 2010s, and the effects of these reforms on curriculum practice. Informed by research in curriculum

inquiry and against a background of academic debates about disciplinary knowledge and university teaching, chapters in this book examined what these university leaders and lecturers perceived as important for curriculum and teaching and the differences and conflicts that were part of that.

The book makes two primary arguments. One is that unbundling has important consequences for curriculum and teaching practice in relation to how academics think about what is important. The second is that curriculum matters in universities but that curriculum issues are too often backgrounded and ignored. This is particularly problematic in unbundled contexts, where the consequences of unbundling are afforded little attention, but is also an issue of wider concern in relation to the policy and management of university teaching more broadly.

10.2   The Problem of Unbundling

Unbundling is increasingly occurring at all levels of the university and encompasses the separation of the university into different roles and activities (Bayne et al., 2020; Cliff et al., 2020; McCowan, 2017; Swinnerton et al., 2020). The idea of unbundling is premised on the idea that specialization improves both the quality and cost effectiveness of learning, and that educational functions are more effectively developed and delivered separately by specialist staff rather than subsumed under the one (academic) role. This book has focused on the unbundling which occurs when delivery activities are separated from the instructional role and educational responsibilities are redistributed outside of the university.

Through the case studies, the book considered how particular lecturers felt about and responded to working within unbundled contexts and the ways some of their thinking about what mattered for curriculum changed as they worked with the new platforms and requirements. One evident shift in relation to this was a greater uniformity in how the lecturers talked about what they felt was important for their curriculum in the unbundled contexts, compared to the diversity of their thinking about their wider aims and purposes. This was particularly evident in their efforts to limit time, to break up content, to reduce ambiguity and complexity, and to focus on outcomes and alignment. At both universities, while the lecturers' aims for their subjects were oriented to what was distinctive about their fields, their ways of working with the affordances and constraints of the unbundled initiatives were oriented far more strongly to the same kinds of teaching approaches.

A second related shift was also seen in the move toward more 'instructivist' didactic forms of teaching. While the differences in the lecturer's aims and purposes remained evident, in working within the unbundled online initiatives all the lecturers became more concerned with issues of clarity and control than with openness and engaging with students' own concepts and understandings. In talking about their subject purposes, many of the lecturers expressed desires to engage with students' own interpretations and thinking about the concepts they were trying to teach, rather than require them to passively absorb predefined content. However, in their practices

of curriculum construction for the unbundled initiatives, the lecturers became more concerned with refining and reworking their predefined content material, with rigid assessment expectations and parameters, and in many cases with over prescribing and directing student activities. The lecturers' emphasis on risk reduction and control here restricted the ways in which students were invited to engage within their subjects, tying them to rigid predefined requirements, rather than encouraging them to take their learning in new directions. For the SandstoneU lecturers, some aspects of these changes were welcomed, in that they potentially encouraged the lecturers to revisit and become clearer about the structure of their disciplinary knowledge in the course of seeking to translate that into curriculum. At the same time, these lecturers disliked the pedagogical imperative to more aligned and outcome-driven forms where these removed the opportunity to deal with knowledge as contested and evolving and to engage with students' own misconceptions. For the TechU lecturers, comparatively, the more open activity discussion components of the curriculum became translated into outcomes-based agendas.

As discussed in Chap. 9, these shifts highlight the ways in which some of the broad tenets of constructivist teaching are challenged within an unbundled context where relations between lecturers and students are inhibited. In the vast majority of cases, with limited opportunities for interacting with students, the lecturers were not able to develop their curriculum content in ways which referenced where students were coming from, and they were not able to teach that content in a way which allowed them to engage with students' own understandings and concepts in a meaningful way. This is the case both for those initiatives which employed casual teaching assistants to facilitate student interactions and those which relied predominantly on students 'teaching' each other within open forums. In contrast to the policy rhetoric about the unbundled online initiatives encouraging more constructivist and interactive pedagogies, the lecturers tended to see the move online as encouraging and necessitating a greater degree of explicitness and standardization. At TechU, where constructivist teaching was identified as an explicit institutional aim, many of the lecturers framed this as secondary to the concurrent attention to alignment and outcomes concerns and tended to restrict activities and assessments to what could be most easily directed.

Drawing on Bernstein (1976), the book has also illustrated the importance and complexity of the relations between curriculum and pedagogy and the ways in which pedagogical form itself contributes to what students learn. As the previous chapters have discussed, the particular pedagogies inscribed within the unbundled online initiatives and the ways these were taken up by the lecturers were not neutral in terms of the knowledge conveyed but gave rise to different possibilities. In reworking their curriculum for these initiatives, the lecturers became concerned with issues which worked against their broader aims. In particular, their approaches to assessment and discussion-based activities potentially undermined their attempts to get across to students the complex nature of their fields and the sense of openness about what was possible in relation to that. These findings highlight the ways in which the pedagogical form of a subject can change the substance of what is communicated within it, from something which engages with complexity and ambiguity to something which is depicted as stable and defined.

However, these issues are being too little recognized within much of the policy formulation at the university level. Within the university policies, a particular sense of what constitutes best practices in relation to pedagogy and curriculum development was strongly evident, but there was little engagement with how the two intersect or might be productively put together. There was also an implicit assumption that lecturers can do what they want in respect to the knowledge to be conveyed, regardless of other directions relating to curriculum design and pedagogy, when the reality is evidently more constrained. For the SandstoneU MOOCs in particular, the rigidity of the videos and multiple-choice assessments evidently aligned better with the purposes of the lecturers who were located in fields where there was a high degree of paradigmatic consensus but presented more significant difficulties for those located in fields where there was more divergence or openness in relation to what was understood to count as knowledge. Outside the university, acknowledgment of the complex relationship between what is taught and how that is conveyed is becoming less and less recognized and this is particularly evident in the calls to unbundle curriculum and teaching.

Unbundling has been examined in this book in relation to MOOCs and OPM initiatives. It is also evident beyond this, however, in other forms of online learning, as well as to a lesser extent in the increased employment of sessional academic staff with responsibilities for tutoring but not curriculum development (Kezar et al., 2014). The issues raised in this book are potentially relevant within these wider contexts and deserve further consideration and analysis. Universities are traditionally institutions of knowledge making in terms of both research and teaching, but the separation of curriculum development and teaching responsibilities shifts university education away from that and toward mere training.

10.3   Why Curriculum Matters

As well as interrogate the implications of unbundling, this book aimed to show what kinds of insights about universities and their activities become evident when research on university teaching takes curriculum and curriculum development as a starting point, compared with a focus on students, pedagogy, and learning (Morgan & Lambert, 2018; Yates, 2009). To illustrate this, the book took up two particular curriculum issues which are amplified in an unbundled context: differences between disciplines and fields in the formulation of curriculum and the extent these are recognized in university strategy; and the push for constructivist pedagogies and their effects on curriculum construction.

In relation to the first, the book showed the continuing importance of earlier arguments about the different orientations and authority relations of disciplines compared with professional fields (e.g. Becher, 1989; Bernstein, 1996; Karseth, 2006; McCowan, 2017), as well as the particular ways in which these emerge within curriculum development. In the interviews, the lecturers demonstrated strong orientations toward the particular purposes of their fields and broad differences were evident

in how those located in disciplines and professional fields saw their teaching purposes. Among the case studies, the lecturers' purposes were not uniform, with some of the subjects oriented toward disciplinary purposes and others toward vocational purposes and engagement concerns.

One evident difference was that those working at SandstoneU in subjects associated with disciplines placed considerable emphasis on the need for their curriculum to not only convey particulars (findings, facts, etc.) to students but to show knowledge as not fixed but as evolving (having a history, challenges, new questions); and to illuminate the ways of knowing and distinctive questions associated with their fields. These lecturers repeatedly showed their concern to convey the nature of their discipline, not just content from it. They emphasized the importance of understanding the rules and norms of the disciplinary approach rather than an approach which offered content knowledge abstracted from that and were concerned in their teaching with making those rules and norms explicit. In working within the unbundled online initiatives, they demonstrated a strong concern with disciplinary boundaries and were concerned where those boundaries were challenged.

In comparison, those working in professional areas at TechU indicated their concern about professional practice as a benchmark driving their curriculum construction. What is known to be useful in the workplace was the strongest reference point, with more flexibility about content and structure in the curriculum. This reference point was combined with a strong attention to issues of student engagement and concerns with reducing the burden on students' learning. These lecturers wanted to develop in their students particular ways of thinking or approaching problems, but, in comparison to the disciplinary lecturers, were far less inclined to make the underpinnings of those an explicit focus of their teaching.

The second curriculum issue examined concerned the push for constructivist pedagogies and their effects on curriculum construction. Here, the discussion highlighted the limited ways in which constructivist teaching is being framed within university policies designed to encourage its uptake. At both the universities examined in this research, there was an emphasis on student activity and interaction as a central concern and criteria of 'good teaching' and a belief that reducing content loads is necessary for teaching large and diverse student populations. This sense of best practice was explicitly identified as 'constructivist' at TechU, and while the term was not used at SandstoneU in the same way, a similar emphasis on the process of knowledge development was likewise evident. This emphasis on students' process of knowledge development was underpinned by a generalized sense of what engages students (doing things, interacting with each other) and the promotion of a mainstreamed, common approach to teaching regardless of the purpose of the educational situation or the content being taught. The interpretation of what a constructivist approach entailed tended to be empty of meaning beyond signaling student-focused and activity-based. There was little acknowledgment of the different potential of different kinds of activities compared with others and an emphasis on 'busyness' rather than substantive value.

In the interviews, university leaders demonstrated a strong commitment to active learning and knowledge construction. Yet at the same time, the ways in which

they positioned curriculum itself as outside the frame and to be filled in by others, suggested that curriculum content could be treated as settled, predefined, and unchallenged by new forms. This implies a different, more 'fixed' concept of knowledge than the constructivist or process view that was part of the policy rhetoric, as well as an inattention to the difficult work involved in curriculum making and the different ways in which unbundled reforms might impact upon lecturers located within different fields.

There was also little acknowledgment of how diverse student histories and understandings might be engaged with and little apparent concern with how such aims might be undermined within unbundled online initiatives that inhibit relations between lecturers and students. The intention was to combine outcomes with constructivist or active pedagogies, with little consideration of the ways the two orientations might conflict within a teaching context offering little lecturer–student interaction. While the university leaders I spoke with were clearly influenced by key arguments in the literature on learning and teaching in higher education about what good teaching looks like, their understandings of what that requires were limited and they tended to not focus on the kinds of conditions necessary for the forms of teaching and learning they wanted to occur.

The context in which universities are attempting to manage teaching is a difficult one. There are external pressures to improve student outcomes and employability and make teaching more 'relevant' to professional contexts; significantly more students are attending university, including students with different backgrounds and different needs; and funding for teaching is consistently being reduced, forcing universities to look at new ways to teach large numbers of students effectively. The impetus for engaging with unbundled online initiatives and the interest in constructivist forms of teaching has emerged within this context. Both as a result are never simply about 'better' teaching, as the university leaders wanted to claim, but are underpinned by economic considerations and a desire to do more with less. The interest in constructivist and process-oriented teaching is about effective teaching in a massified and diversified context and what students are seen to want in teaching, rather than student voice and personal engagement. These underlying agendas work against constructivist teaching and its emphasis on strong lecturer–student relations. Of the initiatives looked at in this research, only one (the SandstoneU OPM partnership) enabled strong lecturer–student relationships and small class teaching, and this initiative was expensive, unattractive to students compared with on-campus options, and ultimately disbanded.

This book has taken a different approach to looking at the issue of constructivist teaching and online learning, focusing not on what students were doing within an educational situation but on what university leaders and lecturers were thinking about and focusing on in their curriculum decisions and practices. These considerations tend to be neglected in studies of teaching and learning in higher education and this book highlights their significance in drawing attention to the substance of what students are being asked to engage with and the problems of relying uncritically on superficial notions of what constructivism looks like in practice.

More generally, this book approached curriculum development as a site of struggle over the question of what counts as knowledge, rather than as a given or a simple technical question. It focused on the work involved in selecting and framing any knowledge as curriculum and the diverse pressures and assumptions that come to bear on that. Here, the discussion of the case studies highlighted the different concepts of knowledge and curriculum at work within the lecturers' and university leaders' thinking and practices, and their struggles to keep these different emphases in play. The university leaders and lecturers' curriculum and teaching aims discussed in this book were not uniform or singular but underpinned by multiple and different emphases and concepts of knowledge and curriculum associated with a range of issues including disciplinary and professional knowledge traditions, online affordances, and student engagement.

This points to the complex and contradictory ways in which what counts as knowledge is embedded within curriculum programs. Curriculum making is genuinely difficult work and the people discussed in this book were working in difficult times, where much of their own sense of what matters and is important rubbed up against what was valued at the university level and within the wider public discourse. The lecturers were not simplistically oriented toward singular aims but were attempting to work with numerous complex values and the different emphases they raise. These multiple orientations are inevitable within curriculum since the ways we think about what matters in education and knowledge necessarily take up a range of different concerns, including issues related to cognition, to identity formation, and to ethics and social values.

However, as illustrated in this book, there is a lack of recognition of this complexity and of the competing agendas underpinning curriculum development within the university oversight of unbundled online reforms. Within the unbundled online reforms, lecturers were asked to work with new platforms and new contexts, but there was little acknowledgment of either the work this involves or the potential for conflict between different agendas at the university level.

The book has been informed by a number of typologies, particularly in terms of work distinguishing between different types of fields, and the book highlights the value of these for understanding the different ways disciplines and professions are being constrained within the current context. However, in looking at the detail of what particular people are doing in universities and the kinds of curriculum-related concerns they are struggling with, it has also shown the messiness in how different concepts of knowledge and curriculum are being put together and the ways these are not captured in neat binary ways of thinking. The book attends to both the continuing salience of the knowledge fields and the differences between them, and the complexities in how the concerns of those fields interact with and are potentially changed by other agendas.

Curriculum captures what matters at a particular point in time and this book has examined particular instances of curriculum development at a moment when MOOCs were the flavor of the day. However, in its temporal frame, the boundaries of curriculum extend beyond the moment of teaching. What counts as knowledge is always historically located and in the case studies examined, it was evident that what

matters to universities and their leaders and to lecturers (as well as their students) derives not just from the present, but also from the contexts of their own histories, trajectories, and identities. At the same time, however, curriculum is also designed to look forward. It is not simply about the present, but also builds toward new futures and sets up different kinds of possibilities. Within universities, curriculum is part of the ways in which disciplinary boundaries are constructed, but it is also a site of potential change that enables the building of new knowledge and the development of new trajectories toward an unknown future.

Yet despite this, within the design of the new initiatives and the form of the curriculum developed for that, there is little sense of curriculum as a site of knowledge making. What counts as knowledge is understood as predominantly pre-set, with the emphasis on students working within rather than contributing to that. Some have argued that curriculum in universities today has a stronger orientation to the future than to the wisdom of the past or present (Yates, 2012). However, at least in these unbundled online initiatives, this future orientation tends to be about broad rhetoric and is less evident in relation to issues of knowledge and substance, or what particular generalizations about future needs might require of education to build toward that.

Within universities, while there is concern with students' future employability, there is far less attention to what they might contribute to the fields in which they study and how different curriculum constructions and programs might change that. As Bernstein (1976) shows, learning within a context which de-emphasizes disciplinary norms provides a different kind of sense of what matters, as opposed to learning within a form which reinforces that, and therefore different possibilities for what students might take from that and the ways they might build and develop beyond it. Shifts away from specific disciplinary concerns to generic agendas are therefore important not only in relation to what students take away from current studies at the present time, but also in terms of what they might contribute to knowledge in future, and these issues are being little recognized or considered within the current university context.

10.4   Looking Forward

Drawing on research conducted in the first half of the 2010s, this book has highlighted a number of problems with directions in university teaching, made apparent through shifts to unbundled online learning and still vitally relevant today. It has pointed to the problems of unbundling curriculum development and teaching and neglecting the complex relations between curriculum and pedagogical form in building what counts as knowledge. It has shown the ways in which differences between disciplines and professions are being overlooked and undermined within new initiatives and in the thinking of university leaders. It has highlighted the limited acknowledgment in current strategies of the conditions required to enable constructivist teaching online and their inattention to issues of substance.

   This book began with a discussion of the crisis facing universities in the COVID-19 context and the response to this has been imbued with many of the issues raised in this book. Again, we see the work of moving curriculum into a new mode de-emphasized as little more than a 'pivot' (Salmon, 2020). We see a continued disregard for context and purpose in the framing of lockdown imposed online teaching as a 'great online learning experiment' that will enable us to examine how students perform online compared with face-to-face 'without worrying about the bias of self-selection' (Zimmerman, 2020). In Australia in particular, we see a sidelining of disciplinary knowledge in funding reforms aimed at producing more 'job-ready' graduates (Eltham, 2020) and we see a continued push for unbundling as the answer to universities' financial woes with little regard for the complexities and consequences this entails (Craig, 2020).

   These issues highlight the difficult nature of the current context in which universities and their decision-makers are situated. However, they also point to the potentially limited ways in which university leaders are understanding that context, the breadth of issues they are neglecting in relation to that, and the problematic ways reforms are being constructed as a result. Teaching reforms are necessarily about what is financially viable, but they also need to be considered in relation to broader issues concerning the knowledge/s being promoted and built, and the open question of what is desirable in relation to that.

   At a conceptual level, the book has drawn particularly on work within the field of curriculum inquiry, a field which has predominantly focused on schooling rather than higher education. Drawing on conceptual resources from this field, it has highlighted the continuing importance of understanding current developments in university teaching in terms of their effects on different forms and fields of knowledge. It has also demonstrated the complex and often taken-for-granted struggle which underpins curriculum development. It has shown that for curriculum, both the framing aims and the practical constraints in which these are enacted matter. It has underscored the importance of attending to curriculum as a focus of scholarly debate and it has highlighted the value and importance of considering continued moves toward unbundled online learning from a curriculum perspective.

   Questions about curriculum are of ongoing concern and are not easily resolved. Yet, as shown in this book, within universities today such questions are frequently taken for granted or ignored. The book has explored the effects of these policy blind spots on lecturers' practices of curriculum making and on the forms of education made possible as a result, focusing on unbundled online learning. It has shown the complex work required to develop curriculum, including in relation to the intersections between different agendas and the significance of the knowledge field. Through these contributions, the book has opened up some new ways for researchers and institutional leaders to engage with questions of knowledge and curriculum within higher education. Such questions require urgent attention if the university is to maintain its place as a core institution of knowledge making in the twenty-first century.

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Appendix: Interviews and Documentary Sources

Overview of Data Collected

This book draws on interview and documentary data from my doctoral research project which was conducted between 2012 and 2017.[1] The interviews for this project were conducted between 2013 and 2014, and the bulk of the documentary materials were also accessed over this period. At each university, interviews were conducted with university leaders responsible for new initiatives, as well as with the lecturers responsible for developing the new subjects across the period of subject development, and policy and curriculum materials were collected and analyzed. This use of both interviews and documentary sources was designed to enable a focus on both the 'what' (form, content, structure) of the curriculum being put together and the rationale and assumptions behind the curricular and policy decisions. The design allowed both direct access to practitioner perspectives and constructions via the interviews and indirect access to the practices and policies informing those understandings via the documentary analysis. This appendix provides an outline of the cases, interviews, and documents drawn on in this book.

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[1] Additional case study subjects and interviews were also examined as part of this research but the appendix includes only those cases and interviews referred to in this book.

Universities, Unbundled Online Initiatives, and Subjects

University	Unbundled online initiative	Subjects	Subject category
SandstoneU	SandstoneU MOOC Initiative	Behavioral Ecology	Discipline (science)
		Interdisciplinary Logic	Discipline (interdisciplinary)
	SandstoneU Online Program Management Initiative	Classical Studies	Discipline (arts/humanities)
TechU	TechU Online Program Management Initiative	Teacher Education	Professional field (education)
		Sports Management	Professional field (business studies)
		Supply Chain Management	Professional field (business studies)

Participant and Subject Details

Pseudonym	Institution	Subject	Position	Discipline/Field
Olivia	SandstoneU	N/A—University leader	Deputy Vice Chancellor (Senior Academic)	Psychology
Kevin	SandstoneU	N/A—University leader	Director (Senior Academic)	Educational Technology
Ethan	SandstoneU	Behavioral Ecology	Senior Academic	Evolutionary Biology
Matt	SandstoneU	Behavioral Ecology	Senior Academic	Behavioral Ecology
Rod	SandstoneU	Interdisciplinary Logic	Senior Academic	Philosophy
Debra	SandstoneU	Interdisciplinary Logic	Mid-career Academic	Applied Mathematics
Laurie	SandstoneU	Classical Studies	Senior Academic	Classical Studies/Ancient World Studies
Sarah	TechU	N/A—University leader	Pro Vice Chancellor (Senior Academic)	Online Learning Design
Lydia	TechU Online	N/A—University leader	Dean (Senior Academic)	Educational Technology

(continued)

Pseudonym	Institution	Subject	Position	Discipline/Field
Grant	TechU	Sports Management	Mid-career Academic	Public Relations and Advertising
Tara	TechU	Teacher Education	Junior Academic	Education
Leah	TechU	Supply Chain Management	Junior Academic	Supply Chain Management
Rachel	TechU Online	N/A—University leader	Learning Design Manager	N/A

List of Interviews and Documentary Sources[2] Reviewed

SandstoneU

University Policies

University Leader Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Olivia	Deputy Vice Chancellor	Interview 1	5/8/2013	41 min
Kevin	Director	Interview 1	21/8/2013	55 min

Policy Documents

- University plan (dated May 2011)
- University eLearning strategy (dated August 2012)
- University plan green paper (dated March 2014)
- University website pages, including media releases (dated 19/09/12 and 11/11/12)
- MOOC Partner website pages, including overview and course list
- Online Program Management Partner website pages including overview, course list, and frequently asked questions.

Unbundled Online Subjects

Behavioral Ecology

Interviews

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[2] The titles of these documentary sources have been modified in the interests of protecting institutional anonymity.

Participant	Position	Interview number	Date of interview	Duration of interview
Matt	Senior Academic	Interview 1	14/6/2013	49 min
		Interview 2	30/07/2013	59 min
		Interview 3	5/09/2013	45 min
		Interview 4	29/10/2013	39 min
Ethan	Senior Academic	Interview 1	1/08/2013	43 min
		Interview 2	5/08/2013	37 min
		Interview 3	2/09/2013	46 min
		Interview 4	5/11/2013	47 min

Documents

- MOOC courseware:

  - Course introduction, overview, and announcements
  - Study guides
  - Pre-recorded short videos
  - Recorded live question and answer sessions
  - Discussion board threads
  - Assessment details and criteria.

- On-campus subject materials:

  - Handbook subject description
  - Subject overview and announcements
  - Recorded lectures
  - Assessment details and criteria.

Interdisciplinary Logic

Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Rod	Senior Academic	Interview 1	4/06/2013	56 min
		Interview 2	2/07/2013	38 min
		Interview 3	3/09/2013	33 min
		Interview 4	12/12/2013	36 min
Debra	Senior Academic	Interview 1	4/07/2012	48 min
		Interview 2	26/08/2013	66 min
		Interview 3	10/12/2013	62 min
		Interview 4	19/06/2014	57 min

Documents

- MOOC courseware

  – Course introduction, overview, and announcements
  – Study guides
  – Pre-recorded short videos
  – Recorded live question and answer sessions
  – Discussion board threads
  – Assessment details and criteria.

- On-campus subject materials

  – Handbook subject description
  – Subject overview and announcements
  – Recorded lectures
  – Assessment details and criteria.

Classical Studies

Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Laurie	Senior Academic	Interview 1	19/11/2013	51 min
		Interview 2	17/02/2014	55 min
		Interview 3	12/05/2014	20 min
		Interview 4	6/08/2014	45 min

Documents

- Online subject materials

  – Handbook subject description
  – Subject overview
  – Further course materials were not provided but the platform structure and materials from the course were presented to me during interviews.

- On-campus subject materials

  – Handbook subject description
  – Subject overview.

TechU

University Policies

University Leader Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Sarah	Pro Vice Chancellor	Interview 1	24/10/2013	50 min
Lydia	Dean	Interview 1	20/8/2013	52 min
Rachel	Manager	Interview 1	9/8/2013	58 min

Policy Documents

- University plan (dated February 2013)
- University website pages, including media releases (dated 23/08/11, 16/11/11, and 05/08/13)
- Online Program Management partner website pages, including overview, description of the pedagogical approach, benefits to employers and employees, pathways, and FAQs.

Unbundled Online Subjects

Teacher Education

Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Tara	Early Career Academic	Interview 1	23/12/2013	52 min
		Interview 2	28/02/2014	41 min

Documents

- Handbook course and subject description
- Further course materials were not provided but the platform structure and materials from the course were presented to me during interviews.

Sports Management

Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Grant	Mid-career Academic	Interview 1	29/07/2013	46 min
		Interview 2	29/08/2013	41 min
		Interview 3	31/10/2013	33 min

Documents

- Handbook course and subject description
- Further course materials were not provided but the platform structure and materials from the course were presented to me during interviews.

Supply Chain Management

Interviews

Participant	Position	Interview number	Date of interview	Duration of interview
Leah	Early Career Academic	Interview 1	25/11/2013	51 min
		Interview 2	18/03/2014	40 min

Documents

- Handbook course and subject description
- Further course materials were not provided but the platform structure and materials from the course were presented to me during interviews.

The Interview Approach

The interview approach comprised open questions with the 'aim of understanding what the interviewees themselves think about and prioritise rather than by direct questioning' (Yates et al., 2017). The research was designed to capture thinking at a point of transition, acknowledging that those being interviewed come with preconceived ideas about what matters.

Interviews with University Leaders

The interviews with the university leaders (discussed in Chap. 5) focused on the intentions behind different policies and the engagement with new initiatives, the story of how these developed and the main priorities, and the leader's broader perspectives on curriculum and change. Indicative questions include:

The intention behind the policy, the story of its development, and its main priorities:

- Can you tell me about the new online learning initiative taking place at your university?
- When did the thinking behind this policy first emerge and what do you think prompted it?
- What can you tell me about the decision to embark on this approach? [e.g. Why was this route chosen? Were any other options canvassed? What influenced the decision-making?]
- Can you tell me about how courses are being (re)developed under the policy and the process that involves?
- Is the process for these courses any different to the development of traditional courses? In what ways?
- Are you able to describe any examples of courses that have been/are going through this process?

Their perspectives on curriculum and change more broadly:

- What can you tell me about your role in relation to the university curriculum more broadly?
- What do you think the role of university management is in relation to the curriculum?

- How do you see the new policy direction as fitting in with the university's overall curricular approach?
- What else is changing about how curriculum is managed at your university and how do you feel about those changes?
- What aspects of the curriculum do you think should be changed, and what do you think needs to remain the same?
- Where do you personally think the direction of higher education curriculum is heading [including in relation to online learning]? What makes you think that?

Interviews with the Lecturers

The interviews with the lecturers (discussed in Chaps. 6–9) aimed to explore four main issues: the participants' experiences re/developing the particular subject, their disciplinary orientation and face-to-face curricular practices, differences in their experiences between developing face-to-face subjects and the unbundled online subject, and the effects of the redevelopment process on disciplinary knowledge. These interviews included:

- a preliminary interview discussing their experience redeveloping a particular subject (how they came to select that particular subject, their experiences of its redevelopment and the kinds of decisions they are making and what is different about that to their past curricular experiences, their selection of materials, how they see their role in the new subjects, what they are hoping to achieve, and what they hope students will take away);
- a second interview discussing their disciplinary orientation and traditional curricular practices (the kinds of teaching and research they do, their experiences developing curriculum, and changes to their curriculum practice over time); and
- additional interview(s) covering:

  - their subject materials for the particular subject (their decisions to include certain aspects of the course, change the order of how the material is presented, or approach assessment differently, conducted with reference to the materials)
  - differences between their experiences developing traditional subjects and the new subject (possibly conducted in reference to their answers in earlier interviews as detailed in transcripts).
  - the effects of the redevelopment process on disciplinary knowledge (how they see the subject in relation to the broader major, discipline, or field, what they see is changing about their discipline and how it is taught and assessed, and how they are responding to these changes).

Separate interview schedules were prepared for each interview which focused on the particular details of the subject in question. The following questions are indicative of the kinds of questions asked:

Their decision and approach to redeveloping a particular subject (to be asked in the first interview):

- Tell me about the subject you are intending to develop?

- Tell me about how you came to select that particular subject to redevelop? Was this a decision you made quickly or over a long period of time? Were you asked to redevelop it and how did you feel about that?
- What has your experience been in redeveloping the subject so far?
- What is different about developing this subject to your earlier experiences of curriculum development?
- Has anything changed about how you select materials, put them together, and determine what needs to be assessed?
- What sort of things have you had to consider that you didn't expect and how have you approached these issues?
- What do you hope students will take away from this subject?
- What do you think your role is in teaching the subject?
- Has your intention for the subject changed at all over the process of developing it? If so, in what ways?
- What are you hoping to achieve by being involved in this space?

Their disciplinary orientation and traditional curricular practices (to be asked in the second interview):

- Tell me a bit about your background, your current role, and the kind of research and teaching you are doing now?
- What subjects, years, and levels are you teaching, and which of these is taught on-campus or online?
- I'd like to ask about your experiences developing curriculum in your field:
  - Can you tell me about the first time you had a chance to develop your own subject? What was the subject about? How did you decide what you were going to include and how it should go together and what needed to be assessed? What did you think about in making these decisions?
  - Can you tell me about a more recent experience developing curriculum for an on-campus subject? Do you approach curriculum development differently now compared to your earlier experiences?
  - Have you had any other experiences developing curriculum that are different from those you've just described? Can you tell me a bit about that?
  - What do you hope students will take away from your subjects?
  - What guides the development, teaching, and assessment of subjects in your field?
  - Has the way you develop curriculum changed over time, and if so, what do you think is driving these changes?

Their subject materials for the particular subject (to be asked in the third or later interview):

- Tell me about your decision to (for example):
  - Include certain aspects of the course and not others?
  - Change the order of certain aspects of the course?
  - Reframe the way certain aspects of the course are approached?

– Assess different aspects of the course or approach assessment in a new way?

Differences between their experiences developing traditional subjects (topic 1) and the new subject (topic 2 and 3) (to be asked in the third or later interview):

• In your second interview, you spoke about how you approach curriculum for traditional subjects by doing x but in the first/other interviews you spoke about approaching the new subjects differently. Why do you think this is so?

The effects of the new requirements on disciplinary knowledge (to be asked in the third or later interview):

• How do you think about this subject in relation to the broader major/discipline/field? How does your work in this subject integrate with the work of others?
• What do you think is changing about your discipline and how it is taught and assessed? [Do you see online delivery as part of these changes?]
• What do you see as the implications of the changes and how do you think they should be interpreted and responded to?

Reference

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