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Curriculum in higher education: Confusion, complexity and currency

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Abstract

Curriculum in higher education has received increased attention in recent years, particularly in the context of whole-of-institution curriculum renewal. Most recent academic literature favours a broad definition of curriculum as a process for connecting and integrating university learning and teaching into coherent and meaningful educational experiences for students. However, in an environment seen as increasingly more complex and commercial, the term curriculum continues to be used in differing or undefined ways, often limited to a focus on the content and structure of programs. The concept appears ubiquitous in higher education but there has been limited explicit use of the term. Over the last two decades a notable increase in research into curriculum in higher education has occurred, notably in Australia and the surrounding region. A range of current issues, such as internationalization, blended learning, curriculum mapping, and research-related learning have reinvigorated interest in curriculum. Greater attention needs to be given to evaluation of curriculum initiatives, while the future currency of the term will depend on a realization of its utility.

Keywords: higher education curriculum; curriculum development; curriculum evaluation.

1. Introduction

In the early 1970s, a seminal paper titled *A Garbage Can Model of Organizational Choice* typified universities as organized anarchies, suggesting,

> such orgaizations can be viewed for some purposes as collections of choices looking for problems, issues and

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> feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be an answer, and decision makers looking for work (Cohen, March & Olsen, 1972, p. 1).

More recently, heralding the advent of the 'enterprise' university, Marginson and Considine saw universities in a "unique set of paradoxes and occasional contradictions [that] confounds every sensible explanation of how modern organization ought to work" (2000, p.1). At the same time, Barnett (2000) was highlighting higher education curriculum in 'the current age of supercomplexity', noting that,

> in a mass higher education system, there will be tendencies towards increased diversity in the components of curricula, the positioning of the providing institution being just one influence to which are added manifold 'external' influences, such as a growing student market and the interests of employers (p. 255)

and,

> in contradistinction to such diversity, as the state looks to see a greater responsiveness towards the world of work, it is possible that a universal shift in the direction of performativity is emerging: what counts is less what individuals know and more what individuals can do (as represented in their demonstrable 'skills') (p. 255).

Seeing little evidence of "systematic attention to curricula as such" Barnett concluded that the future would manifest in curricula "taking on ad hoc patterns that are the unwitting outfall of this complex of forces at work" (p. 255).

Figure 1 is an attempt to bring together the diversity of considerations given to curriculum in higher education. The key aspects are clustered around themes of: definitions and currency (the use being made of the term 'curriculum' in relation to higher education); the institutional locus of application of the concept of curriculum (where things happen within the institution); critique (the extent and nature of scholarly interrogation of the term and its application in higher education); curriculum in higher education as a research interest; the involvement of stakeholders and interest groups in curriculum considerations; and a selection of past, present and future trends and issues.

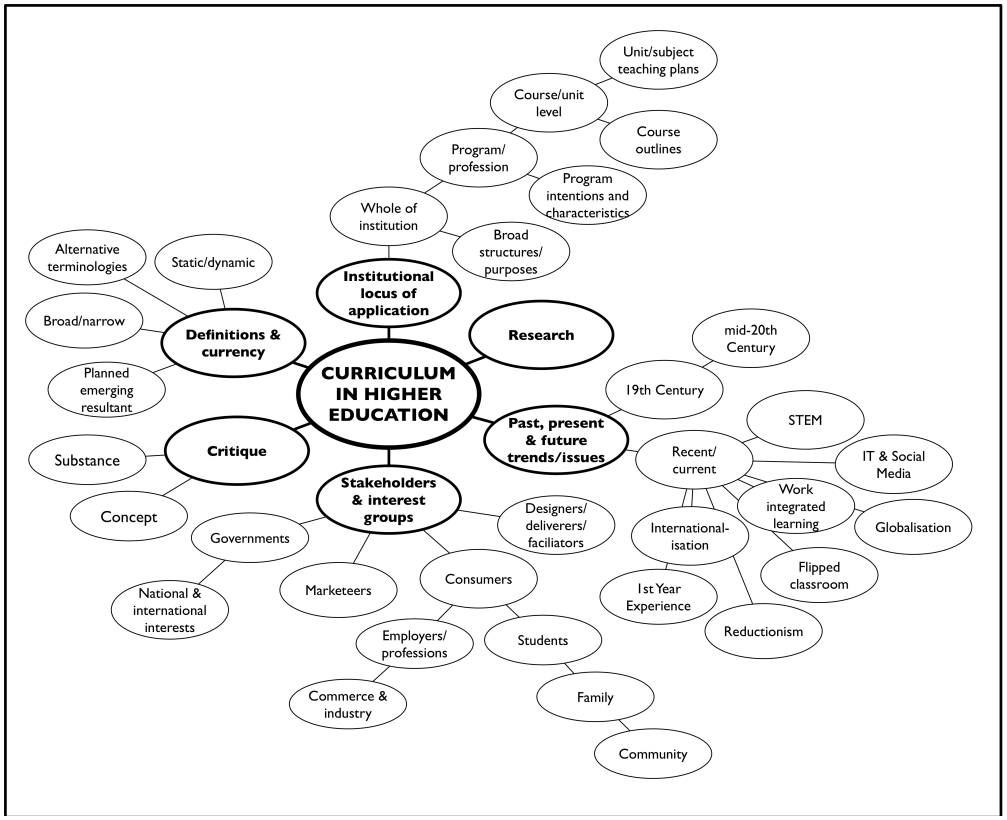

Figure 1. Aspects and Issues of Curriculum in Higher Education

From a situation little more than thirty years ago, when there was a dearth of literature that could be clearly identified as related to curriculum in higher education, and what existed was largely derived from the school sector, there is now so much literature that it is difficult to track emerging themes. Though various aspects remain deficient, underdeveloped and unexplored, there has been a significant growth in the body of English language literature on the topic. This is true for the more established centres of Western higher education, but also true for regions in the world where university education has been experiencing a dramatic expansion and development. A notable growth in the publication of papers related to curriculum issues can be observed in the Asian region, particularly English language publications from Chinese authors.

While it could be argued that today universities– for better or worse– are more managerial and less anarchic than they were in earlier years, any review of curriculum in higher education must take account of the somewhat chaotic context outlined above and requires attention to a broad range of aspects. Reviewing curriculum in higher education thus requires a

significant degree of eclecticism and the presentation diverse and potentially conflicting perspectives.

The following review will attempt to address the following aspects of higher education curriculum: firstly, the contested and confusing understandings (usually unstated, occasionally implied, and even less commonly defined) of the term 'curriculum' in higher education; secondly, the actual currency given to the term today; thirdly, the organizational contexts in which the term curriculum is used; fourthly, some historical antecedents; and finally, some recent and current trends and issues identified in recent literature (with incidental reference to the multiplicity of stakeholder and interest groups). It is an attempt to cover a broad spectrum of aspects so as to give something of an overview of curriculum in higher education today. It is not an assessment of the quality of existing curricula in higher education, institutional or subject specific. The review is arranged somewhat artificially under headings of convenience with some 'trends and issues' dealt with in a separate section towards the end of the paper while others are addressed under earlier topic headings.

2. Curriculum in higher education—definitions and currency

Attempting to define curriculum in higher education presents significant challenges because—as Figure 1 above suggests—there are many contexts in which the term could be used, as well as an array of stakeholders (e.g. lecturers, students, designers, planners, institutional leaders, government regulators, employer groups) with the potential to give the term different meanings. With no definitive definition, the term is commonly used in an accommodating and confusing manner. Most often the term appears to be used in relation to aspects of the structure or content of programs (or individual program components). In some instances, its meaning can be imputed from text analysis (Fairclough, 2003) but often the term is used with an assumed and unclarified meaning. Further elaboration of the challenges in defining and using the term can be found in *The curriculum? That's just a unit outline, isn't it?* (Fraser and Bonsanquet, 2006).

In an earlier review of the literature (Hicks, 2007), curriculum, in its Latin form, was identified as being in use in Scottish universities as early as 1633. Dictionary definitions (Dictionary.com Unabridged (v 1.1), 2007) see the term derived from the Latin 'currere', 'to run', 'a course of action', 'the action of running'. In an educational context this relates both to the aggregate of courses of study, in a school, college or university, and to

particular courses of study. Curriculum is most often seen as a somewhat static—usually planned—phenomenon, but can also be understood as an emerging entity, 'the race being run', only fully identifiable after the event.

Hicks (2007) noted the University of Adelaide's use of Print's definition of curriculum, originally developed for application in schools, in the institution's Curriculum Development and Review of the mid-1990s:

> Curriculum is defined as all the planned learning opportunities offered to learners by the educational institution *and* the experiences learners encounter when the curriculum is implemented (Print, 1987, p.4).

While Print refers to *planned* learning opportunities, of particular relevance in a university context is the reference to *experiences* learners *encounter* during the curriculum implementation that allows for the inclusion—not only of orchestrated learning opportunities—but also of unanticipated learning. In the UK, Knight (2001, p.369) wrote of curriculum as "a set of purposeful, intended experiences". However, this was broadened by Kandiko and Blackmore to include "the unstructured and spontaneous learning that takes place within and outside the formal academic environment" (2012, p. 26). My own preference—derived originally from the work of the Imaginative Curriculum Project of the Higher Education Academy in the UK (Higher Education Academy, 2007)—is for a pragmatic and widely applicable definition of curriculum as including the following five components:

1) What is being learnt
2) Why it is being learnt
3) How it is being learnt
4) When and where it is being learnt
5) The demonstration that learning is taking place.

This is not to deny the importance of a curriculum plan, a 'what, why, how, when, where' statement of *intention*, but the tense used in the above components (e.g. 'what *is* being' rather than 'what *will be*') attempts to ground the definition in the reality of the student experience, recognizing the dynamic and emergent nature of curriculum. Returning to Latin origins of the curriculum, it is a race that is taking place, not simply a plan for a race. It recognizes the 'substance' of curriculum—the content—while seeing this as just part of the offering.

The definition considers the 'why'; so important, it seems, to institutional identity and marketing in a competitive environment, but also important for the student in 'the process of becoming' (Barnett, 2009), and for professions and employer groups demanding the continuation of their enterprise and workforce. The definition is *inclusive of* the essential process of learning—and its facilitation—but doesn't limit this facilitation to conventional teaching, thus allowing for greater recognition of the role of developing technologies and social media.

Component 4 (above) provides for broad institutional dimensions of programs as well as the more detailed structural and temporal aspects of curriculum design. It recognizes on-campus and off-campus learning environments as well as accommodating informal and social environments as part of higher education's context. The final component—the demonstration of learning—recognizes assessment as a critical part of the process, requiring it to be considered along with other aspects of curriculum.

This 'five component approach' to curriculum in higher education is a deliberate attempt to broaden the often-implicit use of the term as referring to content and structure of university offerings. It includes descriptions related to the ethical dimensions of what should be taught in higher education. The definition is supported by a more general trend in the literature concerning curriculum in higher education—certainly at the theoretical and conceptual level—favouring broader more encompassing definitions (Fraser and Bonsanquet, 2006; Fotheringham, et. al., 2012; Blackmore and Kandiko, 2012).

Broad definitions of curriculum highlight it as a fundamental and dominant element in higher education rather than the fringe activities required by administration and governance. This raises issues related to what might be considered a 'hierarchy of terminology'. Clearly, 'teaching' and learning'—or as is often preferred 'learning and teaching'—is more commonly used within the higher education than 'curriculum'. Yet broad definitions of curriculum place teaching and learning within the scope of curriculum, rather than in the relatively separate and 'commanding' position teaching and learning currently occupies. The culture of higher education institutions appears more accepting of a higher profile for issues of teaching and learning, while curriculum issues—other than periodic 'whole-of-institution' initiatives—remain far less visible. In Australia, this was perhaps unwittingly reinforced by the establishment of 'centres for learning and teaching' in many universities in the closing decades of the twentieth century and the provision of government grants for teaching improvement.

Consequently, there is a more identifiable and coherent body of literature and research on teaching and learning. Perhaps, also, academics have been more willing to accept intrusion into their domain with respect to enhancement of their teaching skills—the how— while they would have seen their academic freedom challenged by intrusion into the 'what' and the 'why' of their teaching activity.

Further challenges to 'curriculum', as a term with significant currency in higher education, come from the range of alternative terminologies currently in use in universities and the common practice of alluding to curriculum without actually naming it as such. Hicks (2017) considered the currency of the term 'curriculum' within Australian universities, within government bodies regulating higher education, and within peak industry bodies. This analysis highlighted an array of approximately equatable terms currently in use—e.g. program, course, learning package, educational experience, educational framework, educational directions, even education futures. It noted a rarity in the use of the term 'curriculum' in institutional web pages. While the essence of institutional curricula appeared marketable, use of the term in promotional materials was almost non-existent. Further, it identified a reduced occurrence of the term 'curriculum' in government documents relating to higher education and a significant, though limited use of the term by industry bodies.

3. Critique of curriculum in higher education

The previous section presented a broad definition of curriculum as a workable and pragmatic construct. This was not intended to deny the merit and utility of critical interpretations of the concept. Both prescriptive definitions and critique are necessary to strengthen our understanding and application of the concept of curriculum in higher education.

The contested nature of curriculum in higher education leads to questioning that can be categorized broadly into two main clusters; firstly analysis and criticism of the substance of particular curricula (their purpose and content), and secondly, critique of the concept or particular meanings or interpretations of the concept. There is, of course, a blurring of the boundary between these two perspectives.

There is an abundance of writing from the past hundred years at least, addressing substance aspects of curriculum in universities, while the extent to which such critique actually names 'curriculum' as the issue varies considerably. Most of this literature typically sits within the structural-functionalist sociological paradigm originally elaborated by Talcot Parsons

(Parsons, 1937 and 1951). Accordingly, curriculum in universities is debated in terms of its purpose and function in society. The appropriateness of the curricula of the day is determined, often at national level, according to perceived necessities or benefits of an economic or social nature. Predominantly these writings concern issues of purpose and content of specific educational programs—though in some cases structural issues, such as the broad structuring of university learning into undergraduate and post-graduate programs, are also debated.

A fascinating historical review of what amounts to the major contentious issues of curriculum in Western universities since the mid-1800s—including original papers from the period—can be found in *The History of Higher Education* (Lowe, 2009). This publication covers an amazing range of topics including: the need to distinguish between 'theoretical' and 'practical' study in universities, and the relative status of the two; the secularisation of curriculum in universities; the need for the study of philosophy in universities and the place of moral imperatives in university education; the classification of knowledge and the rise of subject departments; prerequisite understandings for interpretation of 'the modern world'; vocationalism, the forerunner of today's work integrated learning; the rise of the 'college university'; major shifts in the approach to examinations; the significance of classics in university education; the emergence of an identifiable system of higher education; the introduction of 'general studies' as the core component of undergraduate curricula; the rise of technology and the need for polytechnic education; distance learning and the development of modular systems for delivery; the development of mass-access systems of higher education; and the concern about over specialisation in educational offerings. What is interesting in this list is the relevance today of some of these topics and the need for them to be debated anew.

Barnett and Coate (2005) challenged the substance of higher education curriculum, arguing for curriculum design to be about the design of 'spaces for learning' rather than as a process of filling spaces, timeslots and modules. While not stated as such, this appears as an attempt to move away from the 'banking education' approach described by Freire (1970) where the dominating forces in society structure both the content and process of curriculum to meet the dominating forces' desired ends. Barnett considers a curriculum in higher education to be "a pedagogic vehicle for effecting changes in human beings through particular kinds of encounter with knowledge" (2009, p. 430). He elaborates this as a process of becoming, that comes about "through the process of coming to know and to understand" (p.438). Barnett argues convincingly for curriculum to be much more than a simplistic transfer of a large amount of knowledge and/or skills, but rather a

person-forming process epitomized by the graduating student's expression "this course has changed my life" (p. 436).

Unfortunately—and particularly in Australia—while there is a substantial amount of public policy literature in higher education, the public debate of fundamental issues to do with purpose, ideology and substance of what our university curricula are offering does not seem to have matched the international literature of earlier times. This is surprising since Australia has come thorough a decade or so of what could be considered the most substantial reconsideration and renewal of our universities' curricula in the nation's history. While this may be true, it also appears that the dominant forces for curriculum renewal are essentially functionalist, with issues of economics, wealth creation and national imperatives being of greatest concern.

This failure to acknowledge or address the implicit biases in the decisions about curriculum is sometimes called the 'hidden curriculum' which has become a further focus of critique in higher education over the past twenty years. The concept and its application was well elaborated in Margolis et.al. (2001). Different authors highlight different aspects of the 'hidden curriculum', including the reproduction of social stratification in professional schools in universities, the hidden gender and cultural bias in certain courses, students' interpretation of 'the curriculum' as being what is actually assessed rather than the stated course details distributed at the beginning of a course, even the undeclared development of radical ideologies and sub-cultures developed through a curriculum. However, the general tenor of discussion of the hidden curriculum is look beyond the apparent curriculum, look for the unstated intentions, look at the context, look at what actually happens, look at the outcomes.

As regards the concept of curriculum in higher education, there is a developing body of critical literature in this area challenging more accepted understandings of the term. Perhaps not surprisingly, much of the foundational critique of curriculum is not directed at higher education alone, but more commonly has education in general as its focus, and often has been more concerned with schooling. A standout contribution is that of Paulo Freire (1970) arguing for education as the means by which people deal with their reality in the world and participate in its transformation rather than as an instrument for conformity through integration of the younger generation into the present system. Drawing on the broader context of Freire's work, Grundy (1987) presented curriculum as 'not a concept' but rather 'a cultural construction' without existence apart from human interaction.

> Curriculum is a social construction … the form and purposes of that construction will be determined by some fundamental human interests which imply concepts and of persons and their world (Grundy, 1987, p. 19).

Rather than attempting to define curriculum, Grundy acknowledged that curriculum will always mean different things to different people and be used for different purposes. She argued—as did Freire—for an 'emancipation curriculum', allowing "both *freedom from* the dogmatism of tradition that disguises an interest in domination in the cloak of an interest in client well-being, and a *freedom to* in the guise of autonomy and responsibility" (Grundy, 1987, p.187).

Such an approach provides a challenging perspective for analysis of recent curriculum 'renewal' in higher education in Australia and the wider region. In a European context—but also relevant in our region—*Dismantling the curriculum in higher education* (Hall and Smyth, 2016) argues that the higher education curriculum is becoming "increasingly co-opted for the production of measurable outcomes, framed by determinist narratives of employability and enterprise" (Hall and Smyth, 2016). While they condemn existing conceptions of curriculum in higher education, seeing it as bounded and failing to respond to "a broader crisis of social reproduction or sociability", this is clearly not a dominant view. Others would in fact applaud recent curriculum developments for doing just what Hall and Smyth oppose.

4. Research

How much research, if any, is taking place on the topic of curriculum in higher education? Given the confused and often undeclared nature of curriculum in higher education, it is not surprising that at first glance it appears that very little research is taking place on the topic. However, closer inspection does reveal a growth of inquiry into various aspects of curriculum, specifically situated in higher education.

In the U.K., Barnett noted that curricula in higher education had not been extensively studied, citing just two earlier works as "most closely approaching the topic" (2000, p. 255). The first was a study of undergraduate disciplines in nine higher education institutions and the second was a study that produced a typology of curricula as professional, academic or general. As these examples suggest, this was certainly true with respect to empirical research. The now substantial body of work of Barnett and his colleagues, is evidence of increased research activity in the U.K., "examining curricula within the contemporary higher education system and

of attempting to incorporate contemporary social theory" (Barnett, 2000, p. 255).

More recently, Blackmore and Kandiko (2012) have published a book, using 'social practice research' as its underpinning,

> grounded in a major study of curriculum change in over twenty internationally focused, research-intensive universities in the UK, US, Australia, The Netherlands, South Africa and Hong Kong" (p.2).

This publication makes a valuable contribution to the study of curriculum, albeit limited to a research-intensive institutional context, covering issues such as whole-of-institution curriculum renewal, achievement of curriculum coherence, the physical and virtual learning environments, and academic work and leadership. Of particular interest in the Australasian region is the case study presentation on curriculum renewal at the University of Melbourne, 2005 to 2011 (James & McPhee, 2012), and the chapter by Tsui (2012) on undergraduate curriculum reform at the University of Hong Kong.

Worthy of particular attention is the recent publication by Fung (2017) arguing for a 'connected curriculum', again in the context of 'research-based curriculum design'. The author also highlights 'science-orientated studies' and 'more qualitative studies' focusing on arts, humanities and social sciences (Fung, 2017, p. 33). Fung's approach is consistent with a broader recognition of the integrating and unifying potential of broad interpretations of curriculum.

Within our region, the *Good practice report: curriculum renewal* (Narayan & Edwards, 2011) outlined an extensive body of research and practice in Australia, funded by the Australian Government through the Australian Learning and Teaching Council (ALTC) and its predecessors. These projects were typically discipline specific, coming from a broad range of more than twenty discipline areas. Major national projects were undertaken under what was called the 'Discipline Based Initiatives' scheme, involving consortia of discipline leaders from clusters of institutions reviewing programs in their disciplines across Australian universities. Studies covered disciplines as diverse as physics, physiotherapy, law, information and communications technology, peace studies, theology, arts humanities and the social sciences, and engineering. In 2008, the ALTC created 'curriculum renewal' as a category in its Priority Projects Program, with projects expected to,

> develop and model contemporary curricula that meet student and employer needs and provide the basis for

ongoing personal and professional development for students (Hicks, 2009).

The ALTC—and its successor the Office of Learning and Teaching—also funded scoping studies to map, examine and comment on selected curriculum issues commonly experienced across disciplines— e.g. capstone curriculum, work integrated learning, integration of graduate attributes in curriculum, and curriculum development leadership. In total, Narayan and Edwards (2011) identified 40 funded projects in the area of curriculum renewal in higher education.

In 2017, the Higher Education Research and Development Society of Australasia (HERDSA) held a conference with the theme of 'Curriculum Transformation'. The conference proceedings (Walker & Bedford, 2017) published 40 selected papers, a significant majority of which contain some research component having an explicit focus on curriculum. Several of these are referred to in the current review.

The following brief reference to China and Vietnam is illustrative of current interest and research activity related to curriculum in East Asia. A notable recent English language publication, *Higher Education in China* (Gu, Li & Wang, 2018), provides an extensive exploration of the recent history of the sector including the transformation of undergraduate curricula (largely focussed on the content) over its recent sixty years of development in China. An institution specific study—using a broad definition of curriculum—can be found in *International curriculum in practice: A pilot study of the Common Core Curriculum in a Hong Kong university* (Zou, 2017). In Vietnam, recent books have included chapters with specific reference to curriculum. Tran, Le and Nguyen (2014) argues for "curriculum and pedagogy" that "produces flexible, mobile and practical learners and knowledge for Vietnam" (p.87). Most recently internationalisation in Vietnamese higher education has been the focus of curriculum studies (Tran & Marginson, 2018). Internationalisation of curriculum is indeed a pervasive interest throughout East Asia.[1.]

5. Institutional locus of application of curriculum in higher education

Curriculum has at least the potential to impact on all levels of activity within universities—at a whole-of-institution level, at the program level, at the individual course or unit level, and at the level of specific teaching and learning scenarios.

Evidence of whole-of-institution curriculum activity is perhaps most obvious and can be seen in the curriculum review and renewal processes undertaken by many universities in the region over the first decade of this century and continuing into the second. Almost all universities in Australia have engaged in some form of whole-of-institution curriculum renewal since the turn of the century. One of the most prominent of these is 'The Melbourne Model', a six-year process at The University of Melbourne commenced in 2005. Key issues needing to be addressed in such a process of renewal were clearly articulated by James and McPhee (2012). While their case study is institution specific, almost all of the issues addressed are likely to be relevant to other universities. James and McPhee (2012) give consideration to the context and impetus for change, the features of the model itself, the mechanics of the change process (including issues of governance, implementation, and pressure points and challenges), insights (from hindsight) into the change process, and outcomes to date. Other brief reviews of whole-of-institutional renewal can be seen in *Curriculum 2012 and Beyond: Enabling the Student Learning Journey* concerning renewal at Edith Cowan University (Cullity, et. al., 2011), and more specifically focused on the significance of mapping graduate capabilities as part of the process, *La Trobe University's 'Design for Learning Project' Transforming Student Lives Through … Standards?* (Reedman, 2011). The curriculum mapping, particularly at Curtin University, outlined later in the paper, is also relevant in this context.

Numerous reports exist concerning curriculum renewal at the program level within institutions. Most commonly these reports relate to professional programs, in fields such as medicine, allied health and engineering. However, it is difficult to find any systematic analysis of what actually occurs when issues of curriculum are addressed at this level. No aggregated data is available that would give information on the structures, frequency, durations, processes, participants, and outcomes, of deliberations on curriculum at the program level. The process variously includes the work of committees, sub-committees, task forces, project teams, working groups, facilitated workshops, collaborative and in some cases individual curriculum writing. It appears that curricula are reviewed largely on an ad hoc basis, sometimes according to a broad institutional timetable and at times determined by profession bodies. 'Curriculum maintenance', the ongoing monitoring and adjustment of curricula is difficult to detect. Review and reflection appear largely prompted by imperatives arising from outside the program, such as government quality audits, professional accreditation processes, or threats to the continuity of the program through for example,

a serious drop in enrolments. Research documenting and analyzing just what occurs with respect to program curricula would be enlightening.

At the individual course or unit level, again it is difficult to get a picture of what occurs with respect to 'curriculum'. What exists is typically single case study reporting, often of the development of new courses or units, the adaptation of particular units to accommodate issues such as 'internationalization' or to make use of new technologies or social media. In Australia, approximately three quarters of universities provide some form of assistance to academic staff with respect to curriculum development, with a quarter offering courses focusing on curriculum development and design, typically from central units. In some institutions curriculum advisers are available for consultation, and in a few cases on-line resources are made available (Hicks, 2017).

6. Present and future issues and trends

Reviewing curriculum—broadly defined—invites discussion of a multiplicity of issues. Space limits have prevented 'opening Pandora's box' on topics such as the student-curriculum interface, recent curriculum initiatives related to STEM, curriculum and the flipped classroom, the 1st Year Experience, and the rediscovery of work-integrated learning as a critical component of curriculum. The following issues have been selected as having particular significance in promoting a focus on curriculum in higher education in the current environment.

Curriculum and the Biggs 3P Model

Recent literature suggests that a trend may be developing in higher education for greater focus to be given to curriculum as a driving construct within institutions, with a lessening attention to teaching and learning. Such a trend—while confronting—could have a dramatic impact on what universities offer and how it is presented, further reducing attention on 'teaching' and placing 'learning' in the context of curriculum. A 3P model of curriculum reflects this trend.

One of the most recognized and enduring models of pedagogy in higher education is John Biggs' 3P (presage, process and product) model of teaching and learning (Biggs, 2003), an elaboration of earlier work by Dunkin and Biddle (1974). Prosser and Trigwell (2017) recently reviewed the model, its components and their significance in understanding the teaching-learning experience. They noted the considerable work they and others have

undertaken over the past 20 years, exploring the links between the teacher variables and the student experience variables in the model. For Biggs,

> the 3P model describes teaching as a balanced system in which all components support each other, as they do in any ecosystem. To work properly, all components need to be aligned to each other (Biggs, 2003, p.26).

He identified five critical components—apart from the students and teachers—including the curriculum that we teach, teaching methods, assessment, climate created in the interaction between teacher and student and the institutional climate (Biggs, 2003, p. 26). There is, however, no direct mention of curriculum in the model itself. It is a model of teaching and learning. Fung (2017) is critical of the 'constructive alignment' approach that Biggs developed, arguing that any model that demands "every feature of provision must be explicitly aligned to the predetermined learning outcomes, has its own internal logic but has its limitations" (Fung, 2017, p.18).

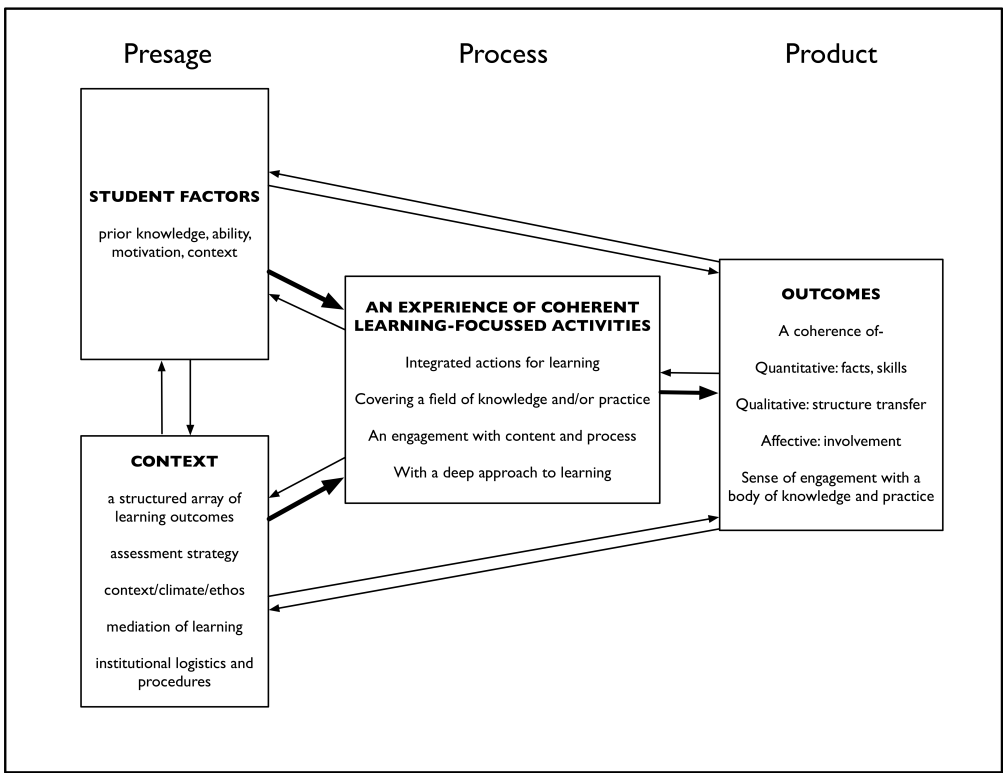

Figure 2. A 3P model of curriculum

My own approach to a 3P model of curriculum (Hicks 2007)—applauding while seeing the limitations in the existing 3P model—is to reposition the significance of the critical components, giving prominence to 'curriculum'. In Figure 2 the basic integrity of the Biggs model is maintained but with rephrasing to emphasize aspects of context, mediation of learning (rather than teaching), greater flexibility in learning outcomes, and the experience of coherent learning-focused activities).

Similarly, Gosper and Ifenthaler, taking "a systems view of the educational experience"(2014, p.2) and seeing curriculum as both shaping and informing student learning and the outcomes set and achieved, saw value in extending the Biggs 3P model to incorporate notions of curriculum.

Curriculum Mapping

The concept of curriculum mapping helped raise the profile of curriculum in universities at the turn of the century. In 2001 the International Association for Medical Education was describing curriculum mapping as "the glue which holds the curriculum together" (Harden, 2001, p. 123). Uchiyama and Radin in 2009 conducted a qualitative study of a curriculum mapping, "a procedure that creates a visual representation of curriculum based on real time information" (Uchiyama & Radin, 2009 p. 271) in a teacher education program in a US university. The authors supported its use as a way to increase collaboration and collegiality in higher education. At Curtin University in Australia, Oliver and her colleagues (Oliver et. al., 2010) were progressing to the third version of a curriculum mapping tool for the whole institution, one they intended as "a dynamic tool that updates automatically from the course database" while highlighting that the current version was being used "by multiple universities across Australia to interrogate learning outcomes and curriculum themes. Oliver and her colleagues noted,

> curriculum mapping has become a topic of interest in recent years in Australian higher education, and is associated with Graduate Attributes and curriculum renewal. Views of its usefulness differ (Oliver et.al., 2010).

The links between curriculum mapping and what could be called 'the graduate attributes movement' are strong. While not elaborated further in the current review, they can be identified in work of Bath et. al. (2004), Sumsion & Goodfellow (2007), Barrie (2007), Hughes & Barrie (2010), Spencer, Riddle & Knewstubb (2012) and Oliver (2013).

In 2012, Yaskin and Ritter went to the extent of lodging a patent with the US Patent Office, for a "Method and System for Academic Curriculum Planning and Academic Curriculum Mapping". This 'system' contained,

> a curriculum mapping feature […] that identifies a bi-directional alignment between goals and courses such that curriculum gaps may be determined as well (Yaskin and Ritter, 2012).

Critiquing the concept of curriculum mapping, Wang (2015) aimed "to overturn the current 'sedentary' thinking about curriculum mapping, and to encourage alternative perspectives about curriculum practices" (p.1550). The paper criticizes current practices as 'tracing' rather than 'mapping' curriculum and promotes the benefits of "seeing curriculum mapping rhizomatically" (p.1550), "abandoning current positions and moving on from a rhizome node" (p.1556). In essence, she argues that students should be encouraged to be map makers rather than map followers. According to Wang, "the purpose of curriculum mapping is to educate a cartographer to create his or her new life", akin to Barnett's (2009) notion of 'becoming'.

Curriculum, blended learning, social media and information technology

It is difficult to do justice to the role of technology in a brief review paper on curriculum in higher education, however it demands some mention at least.

> The task of conceptualising curriculum, of pinning it down in some way, has become all the more complex in the modern era of 'blended learning', when much of what is learned can occur online, both within and beyond the parameters of the planned curriculum. The curriculum as it is lived by students, in an information age of open access resources and social media, almost inevitably stretches beyond the specifics of what is planned and 'delivered' by programme teams (Fung, 2017, p.18).

Attention to curriculum becomes all the more important in the information age where technological developments have a tendency to drive changes with the possibility that learning opportunities deteriorate rather than being enhanced. Blended learning and social media have altered the role of both the teacher and the student, impacting directly on the curriculum at the level of the classroom, or better expressed in this context, 'the learning space'. Mediation of learning now occurs much more through 'technical

devices'. MOOCs can provide access to programs across national and cultural boundaries. Global curricula are in evidence, facilitated by technological advancements. A strong focus on curriculum in these contexts would promote the greatest benefits being achieved from emerging technologies while avoiding or lessening undesirable consequences of their adoption.

What is clear is that technology has and will continue to impact dramatically on the 'how' of what is being learnt. This brings into greater focus the need for curriculum to be a primary organizing and driving construct, rather than 'teaching'.

Research as a part of the higher education curriculum

Emerging from seemingly endless discussions of 'the teaching-learning nexus' in the 1990s (e.g. Newman, 1992 & 1996), a more focused articulation of the place of research in university curricula has taken place in the present century. This has incidentally served to highlight distinct aspects of higher education curriculum in contrast to curriculum in the school sector and in TAFE. Understandably, research as a part of the higher education curriculum has been a particular focus of the 'research-intensive' universities. In the UK, Fung (2017) outlined different aspects of what she termed 'a connected curriculum for higher education',

> built around a core proposition: that curriculum should be 'research-based'. That is, the predominant mode of student learning on contemporary degree programmes should reflect the kinds of active, critical and analytic enquiry undertaken by researchers (Fung, 2017, p. 20).

And drawing on the work of Healy and Jenkins (2009) she argued that,

> wherever possible, students should engage in activities associated with research and thereby develop their abilities to think like researchers, both in groups and independently. These activities may include not only undertaking investigations and formulating related critical arguments and findings, but also peer review, dissemination of knowledge and public engagement (Fung, 2017, p. 20).

This is reminiscent of the seminal work of the Boyer Commission (1998) in the U.S., with the distinct difference that it is explicitly set in the context

of curriculum—in this case 'a connected curriculum'—while Boyer's work took improvement of teaching and learning as the driving focus.

Across our own region, the role of research in the curriculum is also of great significance for 'elite' institutions, however, it should be noted that the designation of 'research-intensive' is in fact the province of a minority of higher education institutions in Australasia and East Asia today. An intensity of focus on these institutions results in unfair, and perhaps meaningless, challenges to many fledgling institutions in the pursuit of excellence, particularly as measured by global ratings agencies (Hicks, 2014, 2016). The effect is a redirection of focus and resources from what could be significantly more rewarding and appropriate curricula.

Internationalization of the Curriculum

Universities in Hong Kong, "in order to stay competitive and relevant in the global era" (Zou, 2017, p. 445), put internationalization high on their agenda. Accordingly,

> one key initiative is internationalization of the curriculum which involves the incorporation of international, intercultural, and global dimensions into many aspects of a curriculum, for example, the content, teaching methods, assessment, delivery, and the support service" (Zou, 2017, p.445).

In recent years, internationalization has become a key issue for the higher education sector worldwide. Just what internationalization means varies, most conspicuously with respect to whether an 'inward' or 'outward' perspective is being taken. The inward perspective is seen where universities—usually from countries with a highly developed higher education sector and a focus on exporting their higher education 'product'—ask how they can best attract and or serve an international cohort of students, either in their home country or in the country of the provider. The outward perspective—a more recent development—occurs in nations seeking to advance their higher education sector to a position where they can compete with or perhaps join with, 'recognized' world's leading universities, the latter typically identified through ranking tables.

Whichever perspective is taken, curriculum plays a key role, identified by Leask (2015) as *the* defining element in the success or failure of the internationalization agenda. Her recent book places curriculum at the pivotal position in the internationalization process, "in connecting theory and practice in internationalizing the curriculum in different disciplinary and

institutional contexts" (Leask, 2015, flyleaf), thus giving the concept significant currency across a broad readership within our region. Reflected in the topics covered in the book is a broad definition of curriculum, similar to the one outlined above by Zou. Many universities in Australia and New Zealand now have some reference to internationalization in their policies, most often from an inward perspective. As mentioned earlier in this review, China and Vietnam are currently engaged in internationalization reflecting an outward perspective.

Curriculum evaluation

There is very little evidence of higher education institutions attempting to evaluate the effectiveness or success of curriculum initiatives at the whole-of institution level (Hicks 2017). "Institutions do not always evaluate whether the curriculum goals of a strategic change have been achieved" (Kandiko & Blackmore, 2012, p. 38) is perhaps something of an understatement, and James and McPhee note,

> the educational effects of curriculum change are notoriously difficult to evaluate due to the large number of variables and the lengthy timeframes before outcomes can be measured (2012, p. 400).

Hicks (2017) saw a situation where rather than any systematic and significant evaluation of curriculum change, institutions were taking a pragmatic approach. This could be driven by a range of imperatives including the political and economic need to protect and promote the institution's 'product'. James and McPhee (2012) noted that considerable resources were put into market research relating to the 'Melbourne Model' at various stages of the process. Pragmatics are likely to be related to the need to maintain prestige and reputation, both at the institutional level and also with respect to the key individuals driving the change. Through consulting work with a number of Australian universities, the author of this review observed a scenario of incremental change, where some curriculum renewal was found to be workable and acceptable within an institution and thought to improve the educational offerings, and was thus deemed successful and prevailed. In the light of a range of competing constraints, contexts, and interests, other renewal initiatives were dispensed with, or else modified until seen as acceptable.

The need for more than market research, and more than an incremental evaluation in the process of 'sensibly feeling our way', is evident. The process is likely to be difficult, the time-lines problematic, the outcomes

possibly unpalatable, but this is an area where the sector needs to do better. At the whole-of-institution level, the question of "how might we know that what we have been attempting was worthwhile?" must be grappled with.

At the whole-of-course level, promising recent developments can be found in the work of Kelder, Carr & Walls (2017) at the University of Tasmania. They draw together Quality Improvement, Quality Assurance and Scholarship of Teaching Learning (SoTL) into a process of curriculum design and delivery. Their approach is data driven, with overt links to institutional performance imperatives and to the Australian Higher Education Standards (HES) framework. Notwithstanding some criticism, they claim their Curriculum Evaluation Research (CER) framework,

> provides a sustainable and effective approach to engage teachers in a collaborative endeavor of ongoing curriculum evaluation; evidence-based curriculum transformation and embedding educational research into teaching practice as a scholarly approach, [while] ensuring regulatory requirements are met (Kelder, Carr & Walls, 2017, p. 186).

and

> the goal continues to be transforming curriculum and building a culture of routine evidence collection and analysis such that meeting regulatory requirements is a by- product of everyday practice (Kelder, Carr & Walls, 2017, p. 196).

The continuing development and application of the CER is worthy of further scrutiny, as is the development of broader and more profound conceptual understandings of what might be involved in curriculum evaluation.

7. Conclusion

In 2012, Blackmore and Kandiko were claiming "the curriculum is a live issue in universities across the world", a significant shift from Barnett and Coate's (2005) observation that "the very idea of curriculum [being] pretty well missing altogether" (p.1). It is also clear that the recent higher education literature on curriculum strongly endorses broader definitions of curriculum, seeing its potential as a connecting and integrating force acting to improve what is offered to students.

Globally, the relatively recent flurry of activity can be seen as a reflection of major changes in higher education. Firstly, higher education is experiencing enormous growth, with nations such as China, India and Vietnam—to name just a few in this part of the world—looking to extend their higher education sectors in the process of nation building. Secondly, higher education has become very big business, bringing entrepreneurial imperatives, business models of operation, market-place competition and greater government regulation and monitoring, particularly related to quality assurance. The impact on curricula of 'marketeers'—identified in Figure 1—should be an ongoing concern. Thirdly, developments in information management and technology-mediated communication have created dramatically new possibilities for curriculum in the higher education sector.

In our region it appears that major institutional curriculum reviews have run their course, at least for the time being. Perhaps the future will see more effort put into continuous processes of curriculum change. Concerned that actual use of the word reflected the current utility of the concept, Hicks (2017) observed a diminishing use of the term 'curriculum' in government higher education documents, however its persistence is promoted in the latest Grattan Institute *Mapping Australian higher education 2018* document (Norton & Cherastidtham, 2018) where 'curriculum' appears not infrequently.

The current trend is to take a broad definition of curriculum in higher education, which will almost inevitably lead to a reinvigoration of the concept. The potential is there for curriculum to become the most significant and unifying influence on what is offered to current and future students. The future currency of curriculum in higher education will depend on the extent to which its utility can be realised.

8. Note

1. It is important to note that, when encountering research and publication related to countries where the first language is not English, considerable 'home language' research and publication exists and all countries have cultural and political contexts that limit what research can be undertaken.

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