Enhancing higher education curricula: A case study from the University of Waikato, New Zealand

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Abstract

In 2014, the University of Waikato launched the Curriculum Enhancement Programme (CEP). As the leaders of this programme we have used auto-ethnography to reflect critically on our experience. Throughout the course of the CEP some things have gone well; others, in hindsight, have not gone so well and in retrospect we would have done them differently. This includes using more channels of communication, more frequently, especially with staff; getting all of Waikato's faculties to pull together more effectively as one institution; and working harder to increase students' opportunities for interdisciplinarity in teaching and research. These lessons, we hope, will be helpful for others also embarking on wide-scale curriculum change.

Keywords: curriculum; auto-ethnography; transformation; change; degree architecture; New Zealand

Introduction

In 2014, the University of Waikato in Hamilton, New Zealand, celebrated its 50-year anniversary. As we reflected on the past, growing from a small institution with approximately 100 students to one that currently has approximately 13,000 students, it seemed like an opportune time to also consider the future. This coincided with a worldwide trend for an increased emphasis on curriculum reform to ensure relevance in the twenty-first century. At the time the university turned 50, our stated vision was 'excellence, distinctiveness and international connectedness'. Waikato's motto is '*Ko Te Tangata*' (which, translated from Māori, means 'For the people'). The university has a diverse student body, 23 per cent of which is Māori. Within the New Zealand context this high proportion is significant (15 per cent of the national population identifies as Māori). This provides us with an opportunity and responsibility to engage a wider range of views to help co-create innovative, research-informed and student-responsive teaching programmes that support Waikato's motto '*Ko Te Tangata*'.

As Blackmore and Kandiko (2012) note, there is currently an international trend that directly links institutions' visions to curriculum renewal and enhancement. Our challenge was to produce graduates who fulfil this vision (i.e. who value indigeneity and cultural difference, achieve excellence and are internationally connected, global citizens) and we figured that curriculum is integral to achieving this. As Marshall (2016: 16) argues, curriculum is an 'institutional leader's key delivery mechanism for bringing about … change', including fulfilling an institution's vision.

Interestingly, in spite of the importance of curriculum in furthering an institution's vision, only limited work has been carried out in this area. Barnett and Coate (2005: 25) comment: 'Higher education is ever more important to increasing numbers of people. And yet, despite all this growth and debate, there is very little talk about the curriculum. What students should be experiencing is barely a topic for debate.' They go as far as saying that curriculum is the missing term in higher education reform discourse.

Fortunately, however, since Barnett and Coate wrote this just over a decade ago some researchers have now turned their attention to the issue. For example, Blackmore and Kandiko (2012) offer case studies of curriculum change in universities in the UK, the USA, Australia, the Netherlands, South Africa and Hong Kong. Many universities are now recognizing that in order to fulfil their institutional visions, they require curricula that are relevant and research-informed, and teaching and learning that is of the highest quality. We too at the University of Waikato wanted to determine how we could best provide a world-class, future-focused academic programme for our students, so in 2013 we – the Senior Deputy Vice-Chancellor and Deputy Vice-Chancellor Academic – launched the Curriculum Enhancement Programme (CEP, 2013).

Curriculum enhancement (also often referred to as curriculum renewal or reform) at a whole-institution level, however, is a challenging undertaking. Keesing-Styles *et al*. (2014: 1) describe how 'Those charged with leading this process will encounter enthusiasm and multiple obstacles to teacher engagement'. Geduld and Sathorar (2016: 1) point out that 'Engaging and leading eduators in a process of curriculum change is not easy: it can be a difficult, and sometimes chaotic journey which is often characterised by philosophical debate, the calling into question of current practices, fear, and even openly acknowledged resistance'. Over the four years we have led the programme we have at each stage reflected critically on the processes. In this article, we connect our personal experience to the wider educational, social and political relations that surrounded the CEP, adopting an auto-ethnographic approach. In other words, we aim to provide insight into our lived experiences of major curriculum and cultural change within our specific university setting. We do not provide a recipe for curriculum change, nor do we just focus on what worked. Instead, we offer some critical reflections in the hope that these might assist others who undertake similar programmes of work in the future.

In the first section, we outline the auto-ethnographic method used to carry out the research. The aims of the CEP are explained in the second section, including how and why it was important to not merely tinker with the existing curriculum but rethink from the ground up what and how we teach. The third section is a discussion of changes to the 'degree architecture', which included incorporating three main elements into all undergraduate comprehensive degrees. The fourth section is a reflection on some of the lessons learnt about managing the change – what in hindsight we think we could have done differently, and one of the successes. Our aim is to add to the emerging literature on curriculum change in higher education by reporting on the outcome of the University of Waikato's CEP, hoping that some lessons might be learnt for other leaders involved in managing such change.

Auto-ethnography: Leading and living the CEP

Auto-ethnographic approaches to research are now well established in many disciplines, including in education. We agree with Mills and Morton (2013: 2) when they note: 'We see an ethnographic sensibility as offering the researcher and the reader unique insights into the educational worlds in which we all now live … We can no

longer pretend that our research personae are separate from the places and contexts we seek to understand.' We have both been deeply immersed in the CEP since we first initiated it and now that it is in its final stages it seems timely to stand back and consider the journey. So, in order to conduct this research, we reflected critically on the process and on our experience. This included visits to other universities (e.g. Monash University in Australia) to learn from their experience of curriculum change, analysing the deliberations of several internal curriculum working groups (e.g. the Curriculum Evaluation Group, Curriculum Transition and Implementation Group and Work Integrated Learning Group), and reflecting on discussions about the CEP over a period of three to four years with staff, students and other stakeholders. We also reviewed the many documents (e.g. formal proposals to the Academic Board and communications with staff via a website, and articles in newsletters) that focus on the CEP and have been shared over the years.

The aims of the CEP: Beyond curriculum 'reform'

From the outset, the aims of the CEP were broadly cast. Prior research about similar projects alerted us to the fact that if major curriculum change was to be successful, then it needed to be focused on the whole institution and go beyond mere 'reform'. As mentioned earlier, many institutions in recent years have undertaken major curriculum change, at both the secondary and tertiary levels. For example, Keesing-Styles *et al.* (2014) discuss managing curriculum change and 'ontological uncertainty' within the New Zealand university tertiary education sector, at the Unitec Institute of Technology. Dello-Iacovo (2009) reflects on the Chinese government's attempt to promote a revised curriculum reflecting a more holistic approach to education within the secondary-school sector. We were acutely aware of the postmodern learning structures in place in contemporary universities (Macdonald, 2003) and recognized that while the CEP had curriculum at its core, it also provided the context for examining teaching approaches, delivery modes, learning spaces, students' transition to university, orientation programmes and early assessment.

We agree with Keesing-Styles *et al.* (2014: 3) who comment that curriculum can be defined 'not as merely the information content of the programme, but rather as the wider programme of learning experience'. As those charged with leading the change at the University of Waikato, we were of the view that students need to be involved in the co-production of curriculum knowledge rather than simply being consumers of it. This, we believed, would help us to bring about deeper cultural change, ensuring the programme would be sustained beyond the implementation phase (Goodyear *et al.*, 2017). We were aware that it can be a challenge not only to create momentum for change across diverse disciplines but also to sustain this change in an institution over time (de la Harpe and Thomas, 2009).

With a wider view of curriculum in mind, we wrapped a number of initiatives around the CEP. First, we brought forward in time the academic orientation (or 'O' Week) programme for students so that by the first week of teaching they were ready to learn, and not just to receive their paper outlines, in lectures, laboratories and tutorials. Second, after a number of discussions, a directive was issued to staff that all students in Level 100 (first-year) papers were to be assessed within the first three weeks of the semester. The reason for this was that early identification of need is an important way for teachers to help students make a successful transition into tertiary study (Loader and Dalgety, 2008). Third, Waikato changed its grading scale, which was out of alignment with the other New Zealand universities. This change ensures that our

graduates are not disadvantaged when applying to other universities for scholarships or places in graduate programmes with limited entry. Fourth, it was decided for various reasons (including alignment with other New Zealand universities, and the desire to create space, interdisciplinarity and flexibility in students' degrees) to assign a value of 15 points to all our undergraduate papers: previously Level 200 (second-year) and Level 300 (third-year) papers had been worth 20 points. Also worthy of mention is that a group began working on academic integrity issues, including drafting an Academic Integrity Framework and Policy, revising relevant materials such as handbooks with a consistent statement about academic integrity and updating the Moodle-based academic integrity module. Initiatives such as these were aimed to help pave the way for, and sit alongside, further curriculum change. We saw curriculum as a package, not just as programme content.

Given that so many initiatives were undertaken simultaneously it was important that we created multiple channels of communication with staff, students and other stakeholders. Email, meetings, open fora, and columns in university and community publications were used to get people talking about the CEP. Also, at the outset of the CEP, a website (see Curriculum Enhancement Programme, 2013) was set up to provide an overview of the programme implementation information and a question-and-answer section, and to act as a repository for key documents. The questions asked in the Q&A section tended to be largely operational, such as 'Will modules (half papers) likely continue to be offered?' There were, however, also a few staff members who asked more strategic questions, such as: 'Are we considering the needs of those with disability and accessibility requirements?' In the later stages, the site also included information on teaching development grants available to staff to assist them with developing new approaches to teaching content and/or its delivery. These were used particularly for initiatives that aligned with the university's strategic goals in the area of technology-enhanced learning and teaching but also for staff to develop new course content for the new curriculum.

Changing the 'degree architecture'

Having decided in the first few months of the programme on a number of the broader issues that needed to wrap around the CEP, the university called upon staff, students and other stakeholders to work together as partners to agree upon a new whole-university degree architecture. Each of the seven faculties was asked to provide a portfolio of academic programmes designed to provide for the future careers and opportunities its students seek, while continuing to promote fundamentally important skills such as critical thinking and leadership. In developing academic programmes, faculties were guided by their research, by best international practice and by the impetus to act as critic and conscience of society, as well as the needs of employers and representatives of relevant professions.

Over the years, like many other universities, Waikato had tended to add more papers and programmes than it deleted. Some courses were thus outdated, ineffective and had few enrolments. The many additions over the years meant also that the rules and regulations governing different programmes of study had become overly complicated, making them difficult for students, and in some cases staff, to operationalise. There was little flexibility and choice for students in some of the degrees. Barnett and Coate (2005: 125) argue that students need to be provided with 'curriculum space' rather than being 'boxed in'. This was our aim – to develop a curriculum that is 'like so many ultra-modern buildings, full of light and open spaces, different textures,

shapes and relationships and arrangements for serendipitous encounters' (Barnett and Coate, 2005: 129). A new framework or degree architecture that was common across all faculties and allowed for student choice, while still offering a meaningful and coherent programme of study, needed to be put in place. This, however, proved to be a challenging undertaking.

In order to achieve this aim, in consultation with others, we drafted a new Curriculum Design Framework (CDF). The 24-page document included curriculum design principles and a list of graduate attributes, as well as setting out new university-wide requirements for undergraduate degrees. A common structure was proposed for all undergraduate comprehensive degrees (but not necessarily professional degrees approved by external bodies), whereby a major would consist of two papers at Level 100, three papers at Level 200 and four papers at Level 300.

It was also proposed that all undergraduate comprehensive degrees contain three components: disciplinary foundations; cultural perspectives; and industry, employer and community engagement. The aim of this, in part, was to help the University of Waikato distinguish itself from other universities (see James and McPhee (2012) on the University of Melbourne's attempt to distinguish its curriculum in 2005 at a time when they needed to remain an attractive choice for undergraduate students in the Asia-Pacific region).

The inclusion of disciplinary foundations was intended to ensure that students had opportunities to develop an understanding of the nature and place of their discipline(s) within the context of the broader area of their qualification and to provide opportunities for the successful acquisition of academic competencies and literacies. Papers offered at Level 100 were designed to support students' successful transition into university study, and together provide them with the foundational concepts and methods required if they are to successfully complete their chosen major(s) and qualification. This component draws on Young's (2013) emphasis on the knowledge component of curriculum.

The second component, cultural perspectives, was designed to ensure that students have the opportunity to become competent and confident in culturally and linguistically diverse contexts both locally and globally. The idea was that students would experience and develop these capabilities in a context-dependent way. Opportunities to fulfil this requirement can include purpose-developed papers, international student exchanges and study abroad, study tours, *te reo Māori* (Māori language) and *tikanga* (Māori culture and customs) papers, international language and culture papers, and/or the design and delivery of a paper in such a way that its content, tasks and assessments are aligned with the rationale and learning objectives that drive this requirement.

In relation to the third component, industry, employer and community engagement, it was intended that students have the opportunity to apply their knowledge and skills in community-based and work settings, ensuring that they are well prepared for their transition to future study and work. Opportunities to fulfil this requirement can include summer research scholarships, internships and work placement papers, community-based work, for example, for voluntary agencies, papers built around a community-engagement project, and/or the design and delivery of a paper in such a way that its content, tasks and assessments are aligned with the rationale and learning objectives that drive this requirement. Many universities these days encourage their students to engage in work-integrated learning but few, if any, have made it a compulsory requirement for *all* undergraduate students.

These three components – disciplinary foundations, cultural perspectives, and industry, employer and community engagement – aimed at providing a coherent

and consistent approach to curriculum across faculties. However, getting agreement on the CDF was something of a challenge. The document was discussed in faculty board meetings and teaching and learning committees. Staff, students and other stakeholders were invited to provide feedback, either orally at information sessions or in written form (45 written submissions were received). After considering the feedback and making the appropriate changes the CDF was finally approved by the academic board in 2016, and each faculty began in earnest to redesign its papers, programmes and qualifications. The University of Waikato has a long history of being innovative and different, that is, of doing things in a distinctively 'Waikato way', and it was anticipated that the new CDF would help us to build on this strength. It is probably fair to say though that after approving the CDF, some colleagues did appear to feel somewhat daunted by the degree of change required to re-develop their curricula.

To ensure that the faculties were supported in the work of redesigning their curricula in keeping with the requirements of the CDF, various groups were set up. One included the deans and other key stakeholders; its job was to approve each faculty's proposed programmes. Keesing-Styles *et al.* (2014: 4–5) explain that Unitec Institute of Technology in Auckland, New Zealand, adopted a new approval process for their curriculum named The Tick, a concept 'derived from the New Zealand Heart Foundation [which] was intended to imply that a "healthy" programme embedded and enacted the "Living Curriculum" characteristics'. When New Zealand Heart Foundation approved a food product, it got to use the 'Tick' logo on its front-of-pack label. The Tick campaign aimed at encouraging food manufacturers to improve the nutrition of their products and enable consumers to make healthier food choices. In using the Tick for its curriculum project Unitec Institute of Technology were adopting the same principle; that is, they were aiming to encourage, improve and approve something as 'fit for purpose'. Another group was tasked with transition issues and helping faculties to work through many of the logistics of wide-scale change, for example, changing 20-point papers into 15-point papers. This group also applied for approval for changes from the Committee on University Academic Programmes (CUAP), which considers academic matters across the university system in New Zealand. Yet another group was charged with assisting faculties in meeting the requirement for all undergraduate students to undertake some form of work-integrated learning as part of their degree at Waikato.

As can be seen, the scale of change adopted at the University of Waikato was extensive. We always knew this was going to be a challenge, being well aware of the experiences of some other universities. For example, in 2005 the University of Melbourne launched an ambitious project that aimed at developing a broad array of skills in graduates through a set of six three-year general degrees. These were dubbed the New Generation degrees (James and McPhee, 2012) and were a first for higher education in Australia. Professional training was moved almost entirely into the graduate programme. In many ways the University of Melbourne's experiment in curriculum worked, but it was not without its challenges and detractors (James and McPhee, 2012). De la Harpe and Thomas (2009: 75) note that 'the literature and research to date show few successful examples of comprehensive large-scale curriculum change'. This is, in part, because higher education leaders do not understand clearly enough that change processes need to convey why change is needed, manage people's fear and anxiety about change, and deploy adequate resources (Eckel *et al.*, 1999). We knew that the CEP was always going to ask a lot, of ourselves and of our colleagues.

Lessons learnt

It is not surprising that over the past four years, as we have progressed with the CEP, there have been some things that in hindsight we would have done differently. For one, we would have explored using even more channels of communication, more frequently, especially with staff. As previously mentioned, a website with a Q&A section designed to encourage dialogue about the CEP was set up, but only a dozen questions were ever submitted. It may be that staff preferred to receive information at faculty level through their deans (who were members of the evaluation group) and associate deans academic (who were members of the transition group). Regardless, consultation and communication were difficult.

Conversations with staff and results from a general staff satisfaction survey conducted at the end of 2016 indicate that some felt the initiative was forced upon them without adequate consultation and communication. In other words, some reported that there had been insufficient 'teacher voice' (Kirk and MacDonald, 2001). Some were also of the opinion that decisions were not communicated clearly enough, and that having to review and change curricula added unfairly to workloads. In other words, some viewed the programme as a matter of compliance rather than as an opportunity to rethink and refresh. This resulted in some resistance to the change. Keup *et al.* (2001) state: 'Resistance [to change] is an important cultural component of institutional transformation that is often overlooked. It is especially relevant to colleges and universities in light of their longstanding tradition of criticism and a wide variety of sub- or counter-cultures.' Other staff were more positive, claiming that the CEP provided them with an opportunity to reflect on and create new papers and programmes. It was most certainly the case, however, that consulting and communicating across diverse groups proved challenging.

Faculties at the University of Waikato also varied in their approaches to the CEP. Some were more willing than others to embrace the change. Resistance was further fuelled by some staff members linking the curriculum changes to a requirement by the Vice-Chancellor for higher student-to-staff ratios, meaning more students per staff member, in some programmes. This was despite the fact that the CEP pre-dated the Vice-Chancellor's arrival. However, discussion about staffing ratios led to some suspecting, from the outset, that the CEP was really about making some staff redundant. De la Harpe and Thomas (2009) argue that trust is of particular importance in higher education environments and is best achieved through open communication and transparent decision-making. Despite our best attempts, this was in reality difficult to achieve.

Another challenge, and again something that we think is instructive to share with others, was trying to get all seven of our faculties to pull together as a single institution. The University of Waikato had over the past decade developed a highly devolved organizational structure, meaning that faculties were used to operating reasonably independently. This had tended to encourage competition for equivalent full-time students (EFTS) rather than facilitate cooperation and interdisciplinarity between faculties and programmes. It had also, in some instances, led to confusion and dissatisfaction for students who have had to adapt to a disparate array of practices and ways of working. At times during the CEP huge pressures were brought to bear on faculties that did not always see the value in adopting a university-wide approach.

An example here might be instructive. The CDF states that all undergraduate comprehensive degrees will have as part of their architecture a common structure for a major. One faculty, however, would not agree to this, on the grounds that in

their particular disciplinary area there are four pillars of knowledge that all need to be taught at Level 200. Therefore, this particular faculty sought special dispensation for their majors to take a different form (i.e. four papers at Level 200 instead of three). In an attempt to finally have the CDF approved, the academic board agreed to this exception – but in retrospect, the reasoning seems somewhat spurious. Agreeing to exempt this faculty from the generic university structure for majors means that the university now again has a situation that makes it more challenging for some students to choose subjects from an array of faculties and plan degrees flexibly, enabling them to pursue their individual interests across a range of disciplines and faculties.

This leads us to yet another lesson learnt, one about interdisciplinarity. An important aim of the CDF was to encourage students to combine or cross disciplines as a way of providing fresh ways of thinking about and understanding issues (see Trowler *et al.*, 2012). However, increasing students' opportunities for interdisciplinary study proved to be harder than we had initially imagined. Despite the many discussions and seeming agreement about the value for students of cross-disciplinary degrees, the reality was that faculties were often heavily invested in keeping students squarely within their own programmes in order to protect their EFTS numbers.

We recommend, therefore, that senior leaders consider carefully the basis upon which faculties are funded and that the message that a whole-university approach benefits everyone is clear. It is vital that students are able to study issues from interdisciplinary perspectives and have maximum flexibility in their degrees while ensuring choices are purposeful. Our new degree architecture was designed to enable students to enrol in a programme offered by a particular faculty but have the option to select from a wide range of papers in different subject areas from across the university to complement their major(s), but breaking down disciplinary silos was very difficult. The organizational culture in place supported faculties working independently, rather than collaboratively. Again, we do not think that this is necessarily specific to the University of Waikato, but if we had our time over again we would facilitate more interaction among the deans, associate deans academic and other staff across faculties to try to convey the message more clearly.

Another challenge we faced was that some staff felt that there was insufficient professional support available to assist with such large-scale curriculum change. This related to several areas: designing new curricula; changing 20-point papers into 15-point papers; finding new, innovative and meaningful ways to assess student work; and using technology to enhance teaching and learning. Keesing-Styles *et al.* (2014: 11) note that 'The amount of professional support required for such widespread institutional change, particularly where it confronts teacher identity, cannot be underestimated.' Although at the University of Waikato the Centre for Tertiary Teaching and Learning offered teachers a range of seminars and workshops, as well as one-to-one assistance from people with skills in designing curricula and e-learning, the issue of professional support was raised time and again. Resources and professional development were available but it proved difficult to get word out about this. Some staff were slow to engage in any depth with the CEP, not seeing it as central to their existing work. When deadlines loomed, however, such as having to submit documentation to internal committees or to New Zealand's national governing body of university academic programmes, some staff were quick to claim that they did not know, had not been provided with adequate assistance or did not think the university would really embark on the curriculum change.

While it is clear that there were some major challenges in implementing Waikato's CEP and there were things that in retrospect we think we could have done better, to

end the story here would be to give the wrong impression. There were also some things in the CEP that we think went well. One was the inclusion in all undergraduate comprehensive degrees of the three components: disciplinary foundations; cultural perspectives; and industry, community and employer engagement. Many (but not all) students, staff and stakeholders embraced this from the outset. For example, employers and community partners were very keen on the latter component. Waikato already had a substantial number of students engaged in workplace training and internships but deciding to offer this, or similar opportunities, to all our students was a big move forward. In practical terms it is a considerable challenge, since the university is based in a relatively small city with a population of approximately 160,000. It is too early to assess yet the success of this new requirement for work-integrated learning, since most of the cohort enrolled under the new degree architecture in 2018 and will not complete this component of their programme until their third and final year, commencing in 2020. At this point a working group continues to oversee progress and the signs are good that having this new requirement for all will enable us to produce graduates who are able to apply discipline-specific knowledge and concepts to professional practice and in everyday practical contexts.

We also feel very positive about cultural perspectives being made one of the key components of all University of Waikato undergraduate comprehensive degrees. Not all students will enrol in the same papers but some will satisfy the requirements by integrating Māori and indigenous perspectives into the context of their specific disciplinary knowledge. The University of Waikato's Hamilton campus is unique in New Zealand in that it sits on Māori land, returned to the tribe after the Treaty of Waitangi Settlement in 1995. More broadly, New Zealand has a legal requirement that *Te Ao Maori* (Māori worldview) underpins government policies. Other students will satisfy the requirements of the cultural perspectives component by studying international languages and culture, but again this means they will develop an understanding of diverse cultural and social spaces. Initially some staff and students in the more scientific and quantitative disciplines struggled to see how cultural perspectives might be relevant to their programme of study, but it did not take long before they began developing appropriate papers that would help prepare students for their future in culturally diverse local and global contexts.

Conclusion

Blackmore and Kandiko (2012: xi) explain that while discussions about curriculum change involve fundamental ideas about higher education they also involve consideration of 'the practicalities of delivering a curriculum in a real institution, with inevitable staffing and resource constraints'. In this article, we have discussed some of the everyday realities of how major curriculum change was enacted at the University of Waikato. Rethinking curricula from the ground up has been exciting, providing valuable opportunities for very real improvement, but it has not been easy. The CEP was a massive undertaking even though, relatively speaking, we are quite a small institution. However, every facilitator, tutor, teacher, paper convenor, programme convenor, chair of school, associate dean academic and dean has had to work though curriculum changes to ensure they can maximize the desired benefits of the new degree architecture. Clearly, there is no single approach for implementing curriculum change that has been found to be effective, and it is our experience that institutions must be prepared to make mistakes.

As Trowler (1998) notes, institutions must also be prepared to be patient: it takes time not only to put in place the practical steps required to change curricula (e.g. preparing documentation, setting up committees and working groups) but also for teachers to reflect on their own practices and identities. Keesing-Styles *et al.* (2014: 2) argue, and we agree, that when teachers are required 'to change not only what they do, but who they are, they may become "ontologically insecure". Teachers potentially become unsure of the value and worth of their work' (see also Ball, 2003). In other words, major curriculum reviews tend to sit alongside significant cultural change. Barnett and Coate (2005: 153) argue that this is often a matter of changing 'hearts and minds', in relation not so much to any particular idea or model of curricula but to the very prospect of even heading in the general direction of change.

When the University of Melbourne created a new degree structure they did so in just seven months, adopting a tight timeframe to reduce community uncertainty. At Waikato it took us closer to two years to decide upon and create a new degree architecture. An advantage of this is that it provided time to sensitively transition students into new programmes, work through complex administrative arrangements and approvals processes and discuss with external stakeholders what the new degrees offered. Also, like many universities, we operate within tight fiscal constraints; increasing the timeframe meant that we did not have to mobilize resources to support the change all at once, or demand too much time at once of academic or general staff. It also gave us longer to consider the domestic and international market implications.

It is too early yet for the University of Waikato to evaluate the effects of our CEP fully. These will not be known for a number of years, since we are still transitioning our first cohort of students into new papers, programmes and degrees. In three years, however, we will be able evaluate the outcomes. What we do know now though is that having the whole of the institution grappling with what it means to rethink the curriculum has been both rewarding and challenging. In retrospect we are hugely pleased that we initiated this and think that we will continue to harness the rewards as we go forward.

Notes on the contributors

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