



THE UNIVERSITY
of EDINBURGH

Institutional insights: an overview of projects and processes in the University relevant to curriculum development

Vel McCune
Institute for Academic Development
University of Edinburgh
26th March 2021

Executive summary

In recent years excellent and extensive work has been done in the University that can inform a curriculum review that is well aligned with the University's Strategy 2030. Relevant processes and projects have involved hundreds of students and colleagues in consultation, research and practice in this area. It is crucial that we learn from these rich sources. These sources span undergraduate, postgraduate taught, and postgraduate research curricula.

This review draws out the following themes:

- 1) Curricula with good alignment, clear pathways and well managed transitions;
- 2) Curricula that are inclusive, participatory, and co-created;
- 3) Research-inspired and future-facing curricula deeply grounded in academic disciplines;
- 4) Flexible and boundary challenging curricula for super-complex global challenges;
- 5) Values-led and capabilities-focused curricula.

Introduction

As we begin to move toward curriculum review in the University it is a good time to consider what we have learned from recent consultations, processes and projects that could inform this work going forward. This short paper draws out some of the key themes across a range of relevant projects and processes that have involved hundreds of students and colleagues across and beyond the University. The sources that have been included are listed toward the end of this document.

The themes

Different perspectives on and aspects of higher education curricula are inevitably somewhat overlapping and inter-related. Below is a set of themes developed with the aim of providing an accessible overview of the main points from the sources reviewed.

1) Curricula with good alignment, clear pathways and well managed transitions

It is clear from the sources reviewed, that curriculum design should consider how all students can find, create and experience coherent pathways through their programmes that connect well with their prior learning, and offer well-managed transitions into, through and beyond their degree programmes (11, 12, 16, 18, 19). This is also echoed in the wider literature on curricula in higher education (e.g. Weller, 2012). Related to this, students need opportunities to practice important forms of assessment and to be able to see the relevance of the feedback on those assessments to their later assessed work and future lives (10, 16, 24). Our Leading Enhancement in Assessment and Feedback (LEAF) process has also identified the importance of avoiding over-assessment and assessment log-jams when designing curricula. The current ELIR reflective analysis emphasises that: “to address assessment and feedback in a meaningful way requires consideration of the wider relationship between assessment methods, feedback and the curriculum” (10). More generally, good alignment between different types of learning, teaching, assessment and learning outcomes is an important feature of well-designed curricula (20, 21, 22).

2) Curricula that are inclusive, participatory, and co-created

Many of the projects considered here emphasised the importance of curricula that are inclusive and participatory (5, 7, 10, 14, 24, 27, 29, 32). One of the particular strengths of Edinburgh degrees can be that they bring together excellent students and colleagues from across the world to learn together. Our curricula should be able to disrupt, transform and push boundaries in the service of social justice and anti-discrimination, drawing on diverse international perspectives (27). Close attention to who our students are and how they experience our curricula and engage actively in their learning is crucial to this (22, 29, 32). The University has worked to develop additional curriculum pathways with key regional partners to provide new routes to participation for mature students, students from deprived communities and care experienced students. These include 1+3 models for entry from specific HNC provision (15). The Strategy 2030 sets out our aspiration to ‘be leading Scotland’s commitment to widening participation’. The four-year Scottish degree provides particular advantages for widening participation, as it can allow easier articulation with the qualifications that are more available to under-represented groups.

The Final Report of the Task Group on Using the Curriculum to Promote Inclusion, Equality and Diversity (8) recommended that inclusion should be embedded in curriculum design and approval processes and quality assurance. Important principles for inclusive curricula include: making sure that authors from under-represented backgrounds are referenced where possible; taking a critical approach to dominant narratives, languages and ways of knowing (see also 17, 29 and Skelton, 2020); considering how learning spaces (both physical and online) can best be constructed to allow all students to participate fully;

offering flexible modes of engagement with study; offering a range of assessments that allow all students opportunities to flourish; making supportive connections with marginalised communities (see also 5, 9). Decolonising the curriculum is a particularly important theme in contemporary higher education (7, Bird and Pitman, 2020; Laing, 2020). Co-creation of curricula can be an important mechanism by which to achieve inclusion as students can collaborate in designing curricula that truly work for them (8, 10, 14). Co-creation of curricula also has important benefits for student engagement (Cook-Sather, Bovill and Felten, 2014).

The value of attention to teacher and student peer relationships, sense of belonging and strong academic communities has been emphasised across University projects (12, 16, 18, 24, 32) and is crucial to inclusion (Bovill, 2020). The recent course, An Edinburgh Model for Online Teaching (4) reminds us that building these strong communities requires sensitivity to the effects of space, place, time distance, presence and contact. There are challenges in the University in finding appropriate spaces for in-person community building (15).

Diversity of pedagogical practices and assessments can be very valuable for inclusive curricula provided students are given sufficient opportunity to practice these diverse learning opportunities and receive formative feedback. The ELDeR learning design process in the University asks participants to consider a rich array of diverse learning and assessment practices rather than defaulting to what has been traditional in the subject area (22).

Inclusive curricula benefit from being embedded in local communities while having regional, national and international outlook. Several of the projects reviewed here remind us of the importance of deeply engaging local, regional, national and international communities in our curricula (5, 24, 32). Internationalisation is a crucial dimension of the education at this University. Work by Robbie Nicol and his colleagues reminds us that enabling rich student engagement with local and global challenges requires careful consideration of how space and place are integrated with curricula. Learning does not only take place in classrooms or online, we need to authentically integrate curricula with many places and spaces beyond the institution including the outdoors (13).

3) Research-
inspired and
future-facing
curricula deeply
grounded in
academic
disciplines

The University's Graduate Attributes (2) remind us of the importance of research and enquiry skills. The importance of curricula that are underpinned and inspired by world-leading research was emphasised across sources (14, 23, 24). Our research students will make significant contributions to knowledge through their own research (30). More generally, curricula in this University are underpinned by deep understanding of knowledge creation in academic disciplines. A strong understanding of one or more academic disciplines is a pre-requisite for the interdisciplinarity emphasised elsewhere in this paper. Research-led curricula in the University involve students in not just learning about research but in being richly engaged in doing research, in enquiry-based learning and coming to understand the knowledge practices of their academic disciplines (23).

The Strategy 2030 sees Edinburgh as the data capital of Europe and the University as a key part of that. This requires data-rich curricula that enable staff and students to engage deeply with contemporary challenges (5). The purposes and approaches under development in the Edinburgh Futures Institute (EFI, 5) remind us of the importance of future-facing work that engages students, teachers and wider communities in unexpected collisions of thinking, creation and innovation, envisioning, prototyping and experimentation in relation to real-world problems such as the climate emergency. Considering the social implications of rapid technological change will be important. We need to continue to re-envision curricula for a post-digital world where digital technologies infuse all aspects of life and learning rather than being a separate niche in learning and teaching (Fawns, 2019).

4) Flexible and boundary challenging curricula for super-complex global challenges

The 2030 Strategy reminds us of our purpose: “As a world-leading research-intensive University, we are here to address tomorrow’s greatest challenges. Between now and 2030 we will do that with a values-led approach to teaching, research and innovation”. This is also reflected in our 2019-20 Student Partnership Agreement Priorities which include the: “aim of empowering students and staff to engage critically and sensitively with the challenges of our contemporary world.” (10, 2.1.33).

These global challenges – such as the climate emergency - are not just complex and difficult to solve, they are supercomplex (Barnett, 2007). Supercomplex problems are those that bring together systems complexity with situations where stakeholders in the problem having fundamentally contrasting perspective and values. Such challenges are also known as wicked problems (Rittel and Weber, 1973). In addition to their complexity, wicked problems tend to be messy and lack clear boundaries. Attempts to solve them usually involve multiple stakeholders with diverse perspectives. Trying to solve wicked problems can result in unforeseen outcomes, which may even make the problems worse. (Barrett, 2012; Cantor, et al., 2015; Rittel and Webber, 1973). Other examples of these wicked problems or global challenges include global inequalities and conflict. Recent reports on how this University embeds social responsibility and sustainability in the curriculum suggests that this is an important issue of concern for students and that we have made positive progress but still have much more to do (25, 26). Experiential curricula that offer students opportunities for meaningful agency and engagement in relation to authentic problems are key here (4, 28).

Pioneering work in the EFI (5) tells us that curricula to engage with these global challenges should be boundary-challenging. This can involve including diverse stakeholders beyond the University - as well as students - in co-creating and enacting curricula. Such curricula also need to challenge the traditional boundaries of academic disciplines with interdisciplinary and transdisciplinary learning. We will also need to push the boundaries of traditional degree timelines providing flexible life-long and life-wide learning experiences for professionals. The University Strategy 2030 emphasises that ‘The undergraduate

curriculum will support breadth and choice, preparing students, graduates and alumni to make a difference in whatever they do, wherever they do it.’ and that ‘Multidisciplinary postgraduate education pathways will support flexible whole-life learning’. The hybrid models currently being developed across the University will be important for this. The value of flexibility in curricula is also noted from recent QA and E processes (14).

Working with over 400 students, staff and other stakeholders, the Near Future Teaching Project (3) also emphasises the value of flexibility and fluency across disciplines. The vision from NFT reminds us of the value of playful, experimental and boundary-crossing curricula. A recent research project carried out with teachers across this University who focus on wicked problems (6) echoes points from these projects and introduces additional perspectives in concluding that curricula for wicked problems must enable learners to work with diverse stakeholders and develop ways of being that accommodate uncertainty and value divergence.

5) Values-led and capabilities-focused curricula

The Strategy 2030 and the University’s graduate attributes emphasise a values-led approach to teaching (1). Many of the projects reviewed here had statements of the values that should underpin our curricula or asked which values were most important (2, 7, 10, 14, 22). Related to a values-led approach, there is a strand of literature on higher education curricula that emphasises the importance of education which enables students’ capabilities: “their real opportunities to do and be what they have reason to value” (Robeyns, 2016, p.1). Capabilities mentioned in these approaches include self-awareness, global citizenship and the capacity to consider the world from the perspective of diverse others (Walker, 2012). Within the sources from this University, the groups of values and capabilities listed below were put forward (these could of course be grouped differently). During the University’s ELDeR learning design process, participants have been asked to consider knowing, acting and being as key dimensions of curricula (22 and based on Barnett and Coate, 2007). The capabilities listed below take into account all three of these important dimensions.

- i) Having integrity, ethical awareness and action, being principled (1, 2, 30);
- ii) Having passion and curiosity (1, 2);
- iii) Criticality and scholarship (5, 10, 30), capacity for evidence-based and research-led thinking (2, 24, 30);
- iv) Engaging with social justice and decolonisation, showing respect, intercultural awareness, international outlook (1, 2, 10);
- v) Taking responsibility, making a positive difference in the world (1, 2);
- vi) Capacity for self-reflection (2);
- vii) Creative, innovative, envisioning futures, skilled in problem-solving (2, 5);
- viii) Well prepared for enterprise, entrepreneurship and employability (2, 10, 14, 31)
- ix) Having courage, confidence, boldness, willing to be provocative, a willingness to risk failure and learn from that, persistence, resilience,

ability to cope with uncertainty, complexity and messiness, realistic optimism (1, 2, 5);

- x) Being skilled communicators, influential, skilled in participatory processes with diverse stakeholders, sensitivity to power relations, showing empathy and open-mindedness, being considerate (2, 5);
- xi) Being ambitious, pro-active, effective, autonomous (2, 30).

The process

Colleagues who have recent involvement in curriculum review emphasise the importance of taking the time to consider and debate the strongly held and diverse views that academics and students will hold on curricula. Bringing everyone along with curriculum change will be a time consuming and challenging process that requires excellent change management. CPD for learning and teaching can play an important part in these processes but colleagues must be persuaded of its relevance and value and must be allowed time to engage meaningfully with CPD.

Sources included

- 1) The University's Strategic Plan 2030: <https://www.ed.ac.uk/about/strategy-2030>
- 2) The University's Graduate Attributes: <https://www.ed.ac.uk/graduate-attributes>
- 3) The Near Future Teaching Project
<https://www.nearfutureteaching.ed.ac.uk/outcomes/>
- 4) An Edinburgh Model for Online Teaching: <https://www.ed.ac.uk/information-services/learning-technology/more/teaching-continuity/training/self-led>
- 5) The Edinburgh Futures Institute: <https://efi.ed.ac.uk/>
- 6) The Wicked Problems Project: <http://www.wickedproblems.ed.ac.uk/>
- 7) Race.Ed <https://www.race.ed.ac.uk/>
- 8) Final Report of the Task Group on Using the Curriculum to Promote Inclusion, Equality and Diversity: <https://www.ed.ac.uk/files/atoms/files/finalreport-curriculumpromoteinclusionequalitydiversity.pdf>
- 9) Mini-series: The importance of diversifying the curriculum: Reflections from the Senate Task Group <https://www.teaching-matters-blog.ed.ac.uk/mini-series-the-importance-of-diversifying-the-curriculum-reflections-from-the-senate-task-group/>
- 10) ELIR Reflective Analysis – Chapter 2 Draft:
<https://www.ed.ac.uk/files/atoms/files/chapter2version1.pdf>

- 11) The Scottish Credit and Qualifications Framework: <https://scqf.org.uk/the-framework/about-the-framework/>
 - 12) Student Transitions – Staff Leaflet: <https://www.ed.ac.uk/institute-academic-development/learning-teaching/staff/levels/student-transitions-guide>
 - 13) Updated: Moray House School of Education and Sport response to COVID-19 through pedagogy, spaces and places: <https://blogs.ed.ac.uk/learningexchange/2020/06/05/moray-house-school-of-education-and-sport-response-to-covid-19-through-pedagogy-spaces-and-places/>
 - 14) Internal Periodic Review Themes 2019/20 SQAC Paper 20/21 1E.
 - 15) Quality Processes: University Level Actions Update SQAC Paper 20/21 1N.
 - 16) An Engineering Approach to Hybrid Teaching (in the context of curriculum review) <https://blogs.ed.ac.uk/learningexchange/2020/06/01/an-engineering-approach-to-hybrid-teaching/>
 - 17) Critical Approaches to the Hidden Curriculum in Music <https://blogs.ed.ac.uk/learningexchange/2020/05/29/critical-approaches-to-the-hidden-curriculum-with-hybrid-learning-in-music/>
 - 18) Supporting Student Transitions within a Hybrid Model <https://www.teaching-matters-blog.ed.ac.uk/supporting-student-transitions-within-a-hybrid-model/>
 - 19) Stepping up to Honours in the Hybrid World <https://www.teaching-matters-blog.ed.ac.uk/stepping-up-to-honours-in-the-hybrid-world/>
 - 20) Guidance from Languages, Literature and Culture on Hybrid Learning and Teaching <https://blogs.ed.ac.uk/learningexchange/2020/05/30/guidance-from-llc-on-hybrid-lt/>
 - 21) The ABC Learning Design Toolkit in use in this University: <https://abc-id.org/download-abc/> and <https://www.ed.ac.uk/information-services/learning-technology/learning-design/abc/toolkit-for-participants>
 - 22) The ELDeR approach to learning design in use in this University: <https://www.ed.ac.uk/information-services/learning-technology/learning-design/elder#:~:text=What%20is%20ELDeR%3F-,ELDeR%20is%20a%20practical%2C%20team%2Dbased%20approach%20to%20learning%20design,and%20a%20comprehensive%20action%20plan.>
- and ELDeR slides kindly provided by Neil Lent, IAD.
- 23) Student Engagement in Research-Led Learning and Teaching: <https://www.teaching-matters-blog.ed.ac.uk/student-engagement-in-research-led-learning-and-teaching/>

- 24) The University Learning and Teaching Strategy:
https://www.ed.ac.uk/files/atoms/files/learning_teaching_strategy.pdf
- 25) University of Edinburgh Responsible Futures Feedback Report, August 2020, see: https://www.ed.ac.uk/files/atoms/files/learning_teaching_strategy.pdf
- 26) Sustainability, Student Experience and the Curriculum: Integrating the Sustainable Development Goals. Paper C, August 2020, Social Responsibility & Sustainability Committee.
- 27) Curriculum as a site for social justice and anti-discrimination:
<https://www.teaching-matters-blog.ed.ac.uk/curriculum-as-a-site-for-social-justice-and-anti-discrimination/>
- 28) Experiential education: Defining features for curriculum and pedagogy:
<https://www.teaching-matters-blog.ed.ac.uk/experiential-education-defining-features-for-curriculum-and-pedagogy/>
- 29) Practical approaches to embedding access and inclusion into the curriculum:
<https://www.teaching-matters-blog.ed.ac.uk/mini-series-practical-approaches-to-embedding-access-and-inclusion-into-the-curriculum/>
- 30) The Code of Practice for Supervisors and Research Students
<https://www.ed.ac.uk/files/atoms/files/copsupervisorsresearchstudents.pdf>
- 31) The Case for the Creation of a Doctoral College, Paper D, University Executive, 21 January 2020.
- 32) Projects for current Widening Participation students at the University of Edinburgh: <https://www.ed.ac.uk/student-recruitment/widening-participation/projects/current-students-university-of-edinburgh>

References

- Barrett, J. (2012). Wicked Problems and Good Work in Music Teacher Education. *Journal of Music Teacher Education* 21(2): 3-9.
- Barnett, R. (2007). *A Will to Learn*. Buckingham, UK: Open University Press.
- Bird, K. and Pitman, L. (2020). How diverse is your reading list? Exploring issues of representation and decolonisation in the UK. *Higher Education* doi/10.1007/10734-019-00446-9
- Bovill, C (2020) *Co-creating Learning and Teaching: Towards Relational Pedagogy in Higher Education*. St Albans: Critical Publishing.
- Cantor, A., V. DeLauer, D. Martin, D. and J. Rogan. (2015). Training Interdisciplinary ‘Wicked Problem’ Solvers: Applying Lessons from HERO in Community-based Research Experiences for Undergraduates. *Journal of*

Geography in Higher Education 39(3): 407-419. doi:
10.1080/03098265.2015.1048508

Cook-Sather, A., Bovill, C. & Felten, P. (2014) *Engaging Students as Partners in Learning and Teaching: A Guide for Faculty*. San Francisco: Jossey Bass.

Fawns, T. (2019). Postdigital education in design and practice. *Postdigital Science and Education* 1(1): 132-145. <https://doi.org/10.1007/s42438-018-0021-8>.

Laing, A. (2020). Decolonising pedagogies in undergraduate geography: student perspectives on a Decolonial Movements module. *Journal of Geography in Higher Education*. DOI: 10.1080/03098265.2020.1815180

Rittel, H. and M. Webber. (1973). Dilemmas in a general theory of planning. *Policy Sciences* 4(2): 155-169.

Robeyns, I. (2016). *The Capability Approach*.
<https://plato.stanford.edu/entries/capability-approach/> Accessed 9.9.20.

Skelton, T. (2020). Teaching sexuality across time, space and political contexts. *Journal of Geography in Higher Education* 44(2), 188-202.

Walker, M. (2012). Universities and a Human Development Ethics: a capabilities approach to curriculum. *European Journal of Education* 47 (3), 448-461.

Weller, S. (2012). Achieving curriculum coherence: Curriculum design and delivery as social practice. In Blackmore, Paul, and Camille B. Kandiko. *Strategic Curriculum Change in Universities: Global Trends*. Taylor & Francis Group.

Acknowledgements

With thanks to Tim Fawns, Ian Gordon, Dave Laurenson, Jen Ross and Patrick Walsh for their reflections on earlier drafts.

If you need this document in an alternative format please
contact curriculum.programme@ed.ac.uk