A synthesis of the first year of the Enhancement Theme 2011-12 and some options for 2012-14

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The first year of the current Scottish Enhancement Theme, Developing and Supporting the Curriculum (2011-2014), has seen many Scottish higher education institutions (HEIs) responding to the pressures for broadening the undergraduate curriculum, particularly as the focus on graduate attributes for the 21st century has been feeding through into active curriculum development across the sector. This report aims to produce a synthesis of the institutional activity across the sector reported in the first year of the Theme. It is based on submitted plans and updates of activity from all Scotland’s HEIs, informal discussions with all steering committee members and, in around half the cases, with the institutional team. It also draws on the reports from the three Theme ‘roadshows’, and on the reports specially commissioned by the Theme.

Curriculum development is a continuous process across the sector, which is, of course, normal in an enhancement-led quality culture for learning and teaching. All of Scotland’s HEIs report ongoing curriculum development, and the range of examples is wide. In most cases activity is proceeding at the level of particular schools/faculties or individual disciplines, although in a few cases a wider process of curriculum reform across the institution has been, or is being, undertaken. This term - reform - is applied to cross-institutional developments, as in a major change to the first-year curriculum for all students, or, in the case of a small specialist HEI, where a significant change to one of the institution’s defining programmes is implemented.

The way in which the curriculum is supported also undergoes continuous improvement, and all institutions are pursuing particular innovations in a wide range of methods for supporting both students and staff. Many of these originate in earlier Enhancement Themes, particularly in Graduates for the 21st Century (G21C), which many institutions describe as working through now to an implementation phase in its impact on the curriculum and on the student experience.

In discussions about how best to describe curriculum trends across the sector, there was interest in exploring the analytical frameworks that may be of practical help in curriculum development. Most attempts to create a model for curriculum have described it in terms of learning outcomes, and have mapped these to desired attributes.1 Curriculum for Excellence, for example, adds to statements about learning outcomes, descriptions of the learning experiences that lead to them. However, a point made in the commissioned paper by Fotheringham, Strickland & Aitchison2 was that the widest interpretation of curriculum leads us to regard it as a vehicle for almost the entirety of institutional policies and agendas. Conceptually, this seems too broad to be useful, and that paper goes on to subdivide the idea of curriculum by distinguishing between curriculum as product and curriculum as process. The paper then models curriculum in the way shown


in Figure 1, with a number of curriculum components varying in their impact on the student experience in proportion to their distance from the 'implied student' at the centre. The dynamic nature of the model is illustrated by representing the forces for change acting on the curriculum space from external sources.

Other possibilities for analysing curriculum have been discussed.

- **Stakeholder analysis**: where the curriculum is modelled from the perspective of a particular stakeholder group - for example institutions, students, teaching staff, employers, library staff, a Funding Council, the government, parents, and professional bodies. The process of developing a new curriculum involves balancing these sometimes competing perspectives. In general,
curriculum development can be considered as a trade-off between the strategic and the functional.³

- Decision analysis: an example of this approach, where key decisions (about such issues as the nature of delivery, support and access) are organised into groups or sequences, is offered in Fotheringham, Strickland & Aitchison (2012).

- Systems analysis: modelling the complexities of curriculum, taking inputs, internal processes, outputs, and identifying relationships and feedback loops between all components. Each previous Theme has shone a light on a particular part of the overall system - tending to show that each sub-system can itself be analysed in finer grain. The current Theme is inviting us to adopt a higher-level analysis. Overall, a conclusion from the discussions so far is that we might benefit from further work on how to model the curriculum in a way that is practically helpful for decisions about development.

**Current activity under the Theme**

The Appendix offers a brief summary of each institution's current focus under the Theme, and the main challenges that remain. This is in no sense comprehensive but is provided as a snapshot of the range of institutional concerns expressed within the Theme's scope. Overall, the main thrust of activity during the first year of this Theme has been to accelerate the process of embedding graduate attributes identified in G21C into the curriculum. In almost all cases this involves broadening the curriculum, although there is still a range of interpretations about the form this should take.⁴

The topic clusters described in this paper are intended to synthesise the range of existing activity as well as providing options for focusing the future work of the Theme.

**Possible strands within the Theme**

The following six options have emerged from discussions: they take forward existing agendas and previous Themes, as well as focusing attention on issues that are not yet at the stage of demanding institutional policies, but are becoming more urgent.

Current activity can be described under four strands. These follow from viewing the curriculum as a system continually responsive to external pressures for change, so the first strand focuses on understanding the nature of these external forces, and the second on the range of ways in which the curriculum is capable of responding to them. Then there is a need to examine in finer grain both the changing nature of students, and the changing requirements for staff. A further strand looks ahead, trying to anticipate from some developments revealed by horizon scanning what decisions institutions will face as this Enhancement Theme continues. Finally, there is interest in devoting a strand to the methodology of curriculum development itself.

³ Sabine Hotho, in discussing the development of a new Management and Business curriculum at the University of Abertay Dundee, has offered a third viewpoint - the pragmatic-critical - where fundamental assumptions about outcomes can be challenged during the process.

⁴ In the University of Aberdeen’s final report of its Curriculum Commission ‘Enhancing Learning: the Aberdeen Approach’, there are distinctions made between different kinds of courses aimed at broadening (called enhanced study). Some are aimed at exposing a student to different methods of enquiry in tackling real world problems, some allow sustained study in a different discipline (for example, a language), while others, called disciplinary breadth courses, aim to set the student’s chosen subject within a wider context of related disciplines. The report can be downloaded from www.abdn.ac.uk/history/ugrad/final-report.pdf.
The pressures for curriculum change

The focus of this strand would be on understanding the pressures that require the curriculum to change.

First, there is a need to understand better the way the higher education (HE) curriculum aligns with the prior learning experiences of students entering HE.

- The need to understand how Curriculum for Excellence and Higher National approaches impact on transition into HE. How can the HE curriculum align with these yet retain a distinctive HE pedagogy? Many institutions are in active development of regional partnerships with further education, and some are developing new arrangements with school sixth years. Articulation arrangements call for the transition into a HE curriculum to be supported in a way that shows an understanding of the pedagogies and learning cultures that will have been experienced by the students involved.

- Across the sector a rising proportion of international students raises for many institutions a quite urgent demand for specialist forms of support. Many of these students have experienced teaching methods and expectations about the student role that differ markedly from those in Scottish HE. This is clearly an important issue for those institutions that are actively developing delivery of a Scottish curriculum overseas. Similarly, the expansion of opportunities for home students to undertake part of their course abroad is an increasingly important aspect of curriculum flexibility.

- The need for specialist support in mathematical skills is emerging across physical, life and social sciences.

- There is a continuing focus in many institutions on the curriculum implications of widening access. Associated with that are issues of accessibility and inclusivity. These are still very much live enhancement issues in several institutions.

Secondly, there are forces that continue to change the expectations of what the HE curriculum can achieve as a process of personal transformation. This requires the following.

- Alignment with demands from employers, professional bodies and implementing the G21C attributes. In several institutions there is a sense that for some professional bodies in particular a more active dialogue about change is required. Previous assumptions about professional careers being lifelong are being revised by the need for ‘portfolio’ careers, where graduates will need the flexibility to re-skill at several stages across multiple short-term contracts.

- The learning of lessons from existing and new case studies of curriculum reform.

- Responding to policy priorities from Government.

The responsive curriculum

This strand would focus on the ways in which the curriculum can actually respond to the pressures identified in the previous topic. Such a focus would invite a new examination of all aspects of flexibility.

- Flexible curriculum structures: several discussions have revealed an interest in opening a new debate about module structures. There is, for example, interest in looking at flexible structures within modules, such as the concept of ‘blocks and threads’.

5 Under discussion at Robert Gordon University.
• Flexible delivery methods: high on the agenda of all Scottish HEIs is the topic of online learning, with particular interest in looking beyond the virtual learning environment to more mobile and personalised methods of experiencing the curriculum. There is significant interest in accelerating the development of forms of flexible delivery that take advantage of online methods, such as work-based learning.

• Flexible forms of assessment: no institution is complacent about current methods of assessment and feedback. This is another topic from previous Themes that is working its way through to changing practice in all subject areas. There is continuing interest in peer assessment.

• Personalisation (flexibility for the individual learner): for some, this involves giving support for students to personalise the curriculum for themselves, but there is agreement that it should not be approached simply through more choice of modules or topics within modules. Flexible learner journeys, through flexibility in entry and exit points, and in the use of accreditation of prior learning, continue to be emphasised.

• Flexible learning methods: there are interests in pedagogy (particularly around e-pedagogy) that could be described as flexible - putting students more in control of their own learning, or expanding the learning tasks beyond those normally experienced. There is particular interest in what is described as vertical and horizontal integration. This refers to novel arrangements for student projects, involving working with peers from other disciplines or from other years of study (or both). Developments in inter-professional learning methods are already quite well developed, particularly across health-related disciplines.

• Flexible curriculum boundaries: in several institutions there is interest in bringing co-curriculum and extra-curriculum student experiences within a credit framework (or at least a HEAR framework7), as well as an interest in a better understanding of the ‘hidden’ curriculum. The opportunities offered by internships within an institution, as well as external placements, are of interest in a number of institutions.

• Curriculum reform case studies: there is much to learn from a longitudinal study of the impact of curriculum reforms, both from Scotland and elsewhere.

The changing student

One of the clearest conclusions to emerge in discussion with the enhancement community was the need to focus more effort in understanding the changing characteristics of students, and their changing role in the delivery of the curriculum. Such a strand would aim at a deeper understanding of the way student expectations of HE are changing - and are likely to change over the next several years - and would attempt to examine curriculum development critically from the student perspective. There is a need to investigate all aspects of the idea of students as partners, including their role as co-designers of the curriculum, and co-creators of learning materials. This strand would particularly explore the pedagogical implications of partnership, and how these differ from those of treating students as customers. Also included in this strand are the following topics.

• Digital literacy: there is a growing acknowledgement that a wide divergence between individual students’ digital literacy levels must be more systematically addressed in the HE curriculum, particularly at discipline level. There is interest in exploring peer tutoring approaches to this problem.

6 Higher Education Achievement Report; see www.hefce.ac.uk/whatsnew/lt/enh/highereducationachievementreport.

7 An approach gaining traction in the learning technology field is described by the acronym BYOD (Bring Your Own Device), anticipating the ubiquity of tablets and smartphones.
• Engagement: the sector continues its focus on the need to establish a culture of engagement with learning, particularly on the role of early first-year experiences of the curriculum. In a few institutions curriculum development has been explicitly informed by the kind of principles highlighted by the SFC-funded TESEP (Transforming and Enhancing the Student Experience through Pedagogy) project. These principles emphasise the need to offer students more control over their own learning - a theme that links closely with digital literacy.

• Transition: the need to design specific support methods for key transitions at various points, and to inform these by an understanding of the varying needs of different student groups.

• Personal transformation: since the main National Student Survey 'drivers' concerning feedback, resources, course organisation, assessment and so on have been high on institutional agendas for many years, attention is beginning to focus more often on the extent to which students are being stretched intellectually by a course, and the need for students to be rewarded for going further than the assessment requires.

• Peer learning and peer assessment: these methods need to take account of the changing culture of sharing seen in social networking.

Staff attributes for the 21st Century Curriculum (S21C)

The area that has probably produced the fewest new ideas for enhancement during the first year of the current Theme is that of staff development. Nevertheless, this area is still positioned high on institutional lists of priorities. A strand on staff would explore the needed attributes for a lecturer (or support staff) to be fully equipped for a modern teaching role. This would explore the way staff roles are changing, along with the culture and values of HE teaching, and the rewards for teaching. It would also explore the following issues.

• Specialisation: globally, we see an increasing tendency for a disaggregation of academic functions, where the roles of designing the curriculum, presenting and explaining the subject matter, giving feedback on student assignments, and even carrying out assessments, are all specialist roles performed by separate staff. Even in Scottish HEIs we see a significant use of postgraduate students as tutoring or lab assistants, and the emergence of teaching-only contracts for lecturers in many universities. The implications of these developments are of great interest to institutional policy makers, HR managers, and of course to those responsible for staff development in learning and teaching.

• Development for part-time staff: staff development is particularly an issue for part-time teaching staff, especially where they are practising professionals.

• Professionalisation: the development of HE teaching as a distinct profession is an aspect of policy that should underpin the attempts to enhance staff development across the board. Of current interest is the potential use of the UK Professional Standards Framework.

• Digital literacy: just as relevant for a sub-theme on staff as it is for one on students is the topic of digital literacy and the increasing need for academics to engage fully with online methods.

• Research and teaching: the pressure exerted on young academic staff to develop a research career while simultaneously developing as a successful teacher is an issue that continues to demand attention. There is a view that as this pressure intensifies, there develops a tendency to specialise, with consequences both in teaching and research for the ability to connect across subject areas. This is particularly detrimental for teaching in the early years of the curriculum. There may be a need for professional development that follows the same broadening principles for staff that curriculum development is attempting to achieve for graduates.

8 See www2.napier.ac.uk/transform.
• Support staff: the changing (and increasingly vital) roles of academic-related staff, or support staff, in delivery of the curriculum.

Curriculum futures
A number of issues that are not yet central in strategic thinking about the curriculum, but which are likely to gain a much higher profile over the lifetime of the Theme, might be gathered into a distinct strand. These include the following issues.

• MOOCs (Massive Open Online Courses): currently, some prestigious US universities are experimenting with an online delivery model that allows thousands of students to register on a special open course for an extremely small fee, or no fee at all, and receive access to high quality online content and machine-marked assignments. Private providers are moving rapidly into this space, and there are even signs of one or two UK universities preparing to do the same.

• OERs (Open Educational Resources): key to online learning, OER developments have received significant investment from JISC (Joint Information Systems Committee), and their take-up is helping to change the lecturer role from a focus on presenting and explaining the subject to one of guiding, selecting, commenting and annotating, and designing learning tasks where high quality content is ubiquitous and completely open.

• Learning analytics: an emerging set of methods for deriving insights about learning in general, and patterns of behaviour of individual learners in particular. This involves data mining techniques using the keystrokes, menu choices and search patterns of online users. Currently some institutions can use VLE usage data in a simple way to try to identify students at risk. Learning analytics has the potential of being used pedagogically, to give learners insight into their own particular pattern of learning. More than this, it is possible to imagine a new kind of proto-science of curriculum development based on such analysis.

• E-assessment: this is making a slow but steady advance. The point at which truly 'smart' tutoring can employ effective e-assessment methods is still some way off, but its impact is likely to be so great on curriculum delivery that institutions need to be well informed about the pace of development.

• Global developments in borderless higher education: other aspects of borderless HE that impact on curriculum development, such as specialist online tutor roles with OERs, need to be kept under close review.

• Horizon scanning: for all issues likely to impact on the Theme.

Enhancement methodology for DSC
Finally, in the recent discussions a strand of issues has emerged that could best be described as methodological. Example issues are as follows.

• Curriculum analysis: emerging methods and tools for analysis of curriculum, such as Curriculum Mapping and Assessment Blueprinting. Benchmarking methodologies could be more effectively tailored for DSC purposes.

• Evaluation methods: there is a strand of opinion that the evaluation of enhancement-led change is currently a weakness across the sector. The need for longitudinal studies has been mentioned by several institutions.

9 Except perhaps that of the Open University.
• Methods of curriculum, programme and portfolio review: there is interest in some of the intensive design workshop methods\textsuperscript{10} that have been developed, and in some more extended processes\textsuperscript{11} that ensure that a review can act as a key opportunity for innovation.

• Analysis of institutional tactics: analysis of organisational approaches to curriculum enhancement, for example in the effectiveness of central units, in methods for embedding enhancement at discipline level, and in the positioning of enhancement in relation to quality assurance.

• Developing a 'scholarship of enhancement': developing the scholarship of learning and teaching, particularly at discipline level.

• Previous Themes: constant updating of previous Themes and highlighting of emerging methods and tools relevant to DSC. Revisiting of case studies.

**Postscript**

At its meeting on 21 June 2012, the DSC Enhancement Theme steering committee endorsed the synthesis described above and decided to recommend taking forward three strands for 2012-14. Within the Theme there will be strands on the flexible curriculum, Curriculum for Excellence, and staff attributes for the 21st Century (titles may be further refined). The enhancement methodology will be explored by the Scottish Higher Education Enhancement Committee.

\textsuperscript{10} For example, the ‘Design Intensives’ developed by Oxford Brookes.

\textsuperscript{11} For example, the ‘Programme Design Sabbaticals’ at Cardiff Metropolitan.
## Appendix: Current institutional focus under the Theme

<table>
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<tr>
<th>Institution</th>
<th>Focus</th>
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<tbody>
<tr>
<td><strong>University of Aberdeen</strong></td>
<td>Evaluation of own curriculum reform. Involving external stakeholders more directly in programme development.</td>
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<td></td>
<td>To raise awareness of Aberdeen Graduate Attributes (GAs) in both staff and students. Mapping of the opportunities for GA development across all programmes.</td>
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<tr>
<td><strong>University of Abertay Dundee</strong></td>
<td>Business &amp; Management curriculum development. Focus on staff support through development of cross-departmental mentoring. Study to gain understanding of relatively poorer academic performance of SIMD20 students, despite equivalent entry qualifications.</td>
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<td></td>
<td>To gain understanding of curriculum development as a holistic project with strategic purpose, rather than as pedagogy, and how the developmental journey of a curriculum is obscured by module structures. To achieve insight into the concept of 'academic buoyancy'.</td>
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<tr>
<td><strong>University of Edinburgh</strong></td>
<td>Three-year focus on enhancing student support (development of personal tutor scheme, peer support). Approaches to assessment.</td>
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<td></td>
<td>Practice sharing. Facilitating the emergence of academic communities. Need for evidence base for enhancement.</td>
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<tr>
<td><strong>Glasgow Caledonian University</strong></td>
<td>Key priority is embedding of GAs in all programmes, also feedback principles. Need for support for part-time staff.</td>
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<td></td>
<td>Better understanding of the needs of articulating and international students. Concern about curriculum implications of the Key Information Set (KIS) and HEAR.</td>
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<tr>
<td><strong>University of Glasgow</strong></td>
<td>Continuing implementation of GAs. Particular focus on assessment processes as driver for student engagement with GAs. Approach used: curriculum mapping and assessment blueprinting in three curriculum areas.</td>
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<td>Curriculum 'ownership'. Relationship between changes in assessment, the curriculum implications that follow, and student involvement.</td>
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<td><strong>Glasgow School of Art</strong></td>
<td>The transformative potential of curriculum. Student choice. Making studio culture understandable. The changing nature of the tutor's role.</td>
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<td></td>
<td>Particular challenge of part-time professional staff. Co-creation of curriculum.</td>
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<tr>
<td><strong>Heriot-Watt University</strong></td>
<td>Support for international students. Induction for direct entry; employability; assessment.</td>
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<td>Curriculum development in a context of rapid international growth. 'Global' GAs.</td>
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<td>Institution</td>
<td>Focus Areas</td>
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<tr>
<td>Edinburgh Napier University</td>
<td>Portfolio review feeding into curriculum development.</td>
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<td>Students as partners. Flexible delivery. Interdisciplinarity. Dialogue with Professional Bodies.</td>
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<tr>
<td>The Open University in Scotland</td>
<td>Case studies in new models for curriculum development, particularly aimed at online delivery and use of OERs. New partnerships.</td>
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<td>Queen Margaret University</td>
<td>Flexibility.</td>
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<tr>
<td>Robert Gordon University</td>
<td>Interdisciplinarity: taking forward through projects on inter-professional education, and through curriculum development in areas of Digital Media and Innovation.</td>
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<tr>
<td>Scottish Agricultural College</td>
<td>Continuing G21C implementation. Support for transitions from Higher National.</td>
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<tr>
<td>Strathclyde University</td>
<td>New Learning Enhancement Framework - facilitating educational development across institution. Particular focus on peer support and peer tutoring methods, and VIPs (Vertically Integrated Projects).</td>
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<td>University of the Highlands and Islands</td>
<td>Development of a curriculum for delivery in secondary schools, aimed at sustainability of senior phase education in region. Distributed model for staff development.</td>
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<tr>
<td>University of St Andrews</td>
<td>Continuing focus on GAs through student self-development: instilling self-reflection, research skills, culture of debate.</td>
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<td>Institution</td>
<td>Key Points</td>
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<td>Royal Conservatoire of Scotland</td>
<td>New curriculum to be rolled out in September 2012. Students have been partners in the curriculum reform project.</td>
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<tr>
<td>University of Stirling</td>
<td>Articulation of GAs through broadening of curriculum to include co and extra-curricular activity. New personal development planning approach. New employability strategy.</td>
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<tr>
<td>University of the West of Scotland</td>
<td>Embedding of general Learning, Teaching and Assessment Strategy principles in the curriculum, as well as GAs.</td>
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<tr>
<td>University of Dundee</td>
<td>Pedagogy of e-learning. Assessment (TESTA) as a tool for curriculum review.</td>
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