First Year Assessment ReDesign – A Programme Approach

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ABSTRACT: A key priority of University College Dublin's (UCD) Education Strategy (2009-2014) is 'to foster early and lasting student engagement'. A central strand of this was a strategic *Assessment ReDesign Project*. In 2011/12, the project was implemented in five programmes, with the Deans leading the process and involving all their first year Module Coordinators. The project methodology centred around three full-day facilitated workshops with these Programme teams. A programme mapping tool was used to reflect on gaps/overlaps in the programme and actions plans were devised for first year assessments. In evaluating the Deans' and Module co-ordinators' views, the Deans in particular valued the opportunity to take a programme overview and to a lesser extent the changes made to first year assessment. The coordinators highlighted a significant intention to reduce assessment overload and to develop assessment ***for*** learning activities in their first year modules. In summary, findings from this project demonstrated the success of a collaborative and flexible programme approach to curriculum innovation.

1 Introduction

UCD is Ireland's largest single-campus institute of higher education and was the first Irish university to achieve a fully modular programme structure in 2005. While initial energies were focused on implementation of a re-structured curriculum (2005-2008), the most recent UCD Education Strategy (2009-2014) prioritises enhancement of the learning experience and identified as one of its key aims 'To foster early and lasting student engagement'.

This paper evaluates a programme approach to the review and re-design of first year assessment to achieve effective learning and student engagement, while still being efficient for staff. This project was developed by UCD Teaching and Learning as a central strand of a wider strategic initiative – *Focus on First Year*[1]. The design of the project, particularly the dual-emphasis on effectiveness and efficiency, was informed by a similar (though much larger-scale) initiative undertaken by University of New South Wales (UNSW)[2].

The UCD approach centred on three full-day workshops involving programme teams, each with clearly defined outputs. A central element of this programme-based approach was a curriculum mapping exercise which involved mapping stage 1 modules to stage 1 outcomes and programme outcomes. Revision of assessment was framed in terms of alignment with UCD First Year Assessment Design Principles (O'Neill & Noonan, 2011a & 2011b).

In this paper 'programme' refers to a full degree programme, 'module' refers to accredited self-contained component of the programme and 'stage' refers to progression points towards completion of programme, generally corresponding to year of study.

[1] Launched in 2010 a major 'Focus on First Year' strategic initiative explores the development of the most effective curricular structures, assessment strategies and academic supports for first year students across all undergraduate programmes.

[2] UNSW Assessment Project - http://teaching.unsw.edu.au/spotlight-on-assessment-unsw

2 Literature Review

2.1 Curriculum Design and Programme Mapping (focus on assessment)

Knight (2000) in his work on assessment highlights the importance of addressing assessment issues from a strategic perspective. He emphasises that many of the tensions associated with assessment, for example the challenge of efficiently obtaining both validity and reliability, can only be addressed by taking a wider more strategic approach to assessment change. Mutch (2008) and Ross (2010) reiterate this strategic approach to 'thinking about assessment'. Many of the authors in the field of curriculum design (Fink, 2003; Ornstein & Hunkins, 2009; Wiggins & McTighe, 2005) discuss the efficiency of a programme approach and in addition they advocate the importance of alignment of assessment to the programme's educational philosophy, the programme outcomes and/or its graduate attributes. This driver for both efficiency and alignment has, in recent years, produced a growth in the practice and literature around curriculum mapping (Ducasse, 2009; Sumsion & Goodfellow, 2004). In particular there has been an interest in how these are mapped to graduate attributes (Lowe & Marshall, 2004; Sharp & Sparrow, 2002; Treleaven & Voola, 2008). A review of some of these tools notes how the level of detail and presentation of these can vary, but they have in common the intention to map the assessments to the graduate attributes or programme outcomes (O'Neill, 2009).

The *UCD Assessment ReDesign* project had a focus on first year assessment, however it was decided that the most useful way of addressing this would be through developing a programme approach and to use a curriculum mapping tool as the first step in exploring these assessment practices.

Over the last 10 years there has been international interest in the first year experience and as part of this, a focus on first year assessment (REAP, 2010; Krause & Coates, 2008; Nichol 2010). Based on the literature in this area UCD had developed a series of assessment design principles for first year, both for staff working at programme level (i.e. Deans, Heads of School) and for module co-coordinators considering their first-year assessments. Table 1 sets out these nine assessment design principles.

Table 1: The UCD Nine Assessment Design Principles for 1st Year (O'Neill & Noonan, 2011)

Programme Design Principles http://www.ucd.ie/t4cms/designifyassess.pdf	**The Module Design Principles** http://www.ucd.ie/t4cms/moddesignfyassess.pdf
1. Create space in the curriculum for inducting learners into the key discipline/subject concepts 2. Develop a strategic approach to the selection of assessment methods, i.e. mapping assessments to 'core' learning outcomes for the stage 3. Implement a range of approaches to streamline assessment workload for staff and students	4. Regular low stakes assessment with feedback 5. In class student peer review of learning 6. Well-structured collaborative learning and assessment 7. Effective sequencing on module learning and assessment activities 8. Active/task-based learning using authentic assessments 9. Reduce student assessment workload within and across modules

2.2 Curriculum change processes

Blackmore and Kandiko (2012), in their analysis of strategic curriculum change in research-intensive universities, identified a clear sense of purpose and strong leadership as important factors in successful curriculum change initiatives. They also argue that universities are complex and diverse organisations and that disciplines and professional groups "have their own way of knowing and being that are not readily reducible to a common formula" (p 209).

They cite examples of effective change where local interpretation of an institutional priority/framework was encouraged, resulting in greater ownership and flexibility in relation to the change process.

Dempster et al (2012) also focus on the importance of 'ownership' in their evaluation of the 'Course Design Intensive' (CDI) model of academic development. This model focuses on programme-level development and highlights the importance of making time for staff to work collaboratively and reflectively on issues of curriculum innovation and design. They also note the importance of 'buy-in' by programme leaders and department heads in facilitating this. Healey et al (2013) conclude that "discipline-based department teams, rather than individuals, can be strategic targets for effective change" (p. 42).

3 The Project

Although UCD has adopted a learning outcomes curriculum, there are no meta-level policy instruments nationally, such as Programme Specifications or Subject Benchmark statements, which draw attention explicitly to Programme outcomes and their link to curriculum. Therefore placing attention on the articulation of programme outcomes and their alignment to module outcomes provided a useful starting-point to the change dialogue by focussing attention on the role of First Year Assessment in achieving the programme's ultimate educational aims. Additionally, while professionally accredited programmes are subject to a regular cycle of review, non-accredited programmes are not reviewed holistically though constituent modules are reviewed annually by Schools.

3.1 Key features of the UCD Assessment ReDesign Project

Phase 1 of the Assessment ReDesign project was implemented in 2011/12 with five UCD Programmes, who had expressed an interest in assessment enhancement as part of the *Focus on First Year* project 2010/11. The participating programmes were: Architecture, Physics, Radiography, Social Science and Veterinary Medicine. In keeping with the programme approach to assessment, the project was led locally by the Dean/Head of School and also involved Stage/Programme Directors and all first year Module Coordinators. UCD Teaching and Learning staff (working in pairs) facilitated the project process with each of the five programme teams. The project timelines were tight (December 2011 – April 2012) to align with curriculum management system deadlines. Table 2 sets out the structure of the project and the outputs, content and participants for each workshop/meeting.

Table 2: Structure of the Project

Overview of Workshops facilitated by UCD T&L Staff	**Staff Involved**	**Outputs**
Preparatory Meeting, including review of Programme and Stage 1 baseline assessment data	Programme Dean and Programme 'Lead'[3]	Agree details of project format to address specific context of programme
Workshop 1 (full–day): 1. Overview of project & expected outcomes, followed by Q&A session 2. Focus on articulating programme & stage outcomes (aligning with UCD Graduate Attributes & relevant professional body frameworks).	Programme Team	Headline Programme & Stage Outcomes
Workshop 2 (full-day): 1. Using the mapping tool, evaluate each stage	Programme Leaders &	A map of teaching, learning &

[3] From here on out the Programme Dean and Programme Lead are collectively referred to as 'Programme Leaders'

vis-à-vis the teaching, learning & assessment activities. Identify assessment gaps & duplication. 2. Introduction to the idea of 'Programme Assessment Equivalence Guide' for different assessment approaches. *(take-home exercise)*	representatives from each stage	assessment activities for all stages
Workshop 3 (full-day): Using the a) First Year Assessment Design Principles, b) revised stage outcomes, c) overview of current practice, re-design your module assessment.	Programme Leaders & all first year module coordinators	Stage 1 Plan, outlining individual module assessment changes
Development Workshops (post-project): 1 hour workshops post-project to support first year module coordinators to implement new approach to assessment	Open to all staff	Overview, practical examples and resources on specific assessment strategies

A programme mapping tool was developed as part of the project and was based on the aforementioned literature in this area. The tool was developed to be used within the time constraints of workshop 2, using an Excel spread-sheet. The tool allowed an in-workshop score on the extent to which the programme outcome were addressed (and assessed) for each module. However, the 'score' was used primarily as a tool to promote reflection and discussion on the programmes outcomes in relation to their assessment.

As in Table 2 above, the workshops therefore focused on both senior programme leaders (Workshops 1 and 2) and the module co-ordinators (Workshop 3) ,although these categories of staff were not always mutually exclusive and, based on the Programme/School size and context, many staff attended all three sessions.

4 Research Methodology

In order to gather the view of these two groups of staff, the formal evaluation of the project consisted of separate elements:

I. Face-to-face interviews were carried out with the individual Programme Leaders (n=7), exploring their experience of the project process, the extent to which the project objectives were achieved and analysis of changes in assessment in their programme. At least one representative from each of the five participating programmes was interviewed.

II. An online survey was distributed to the first year module coordinators (n=41), using Survey Monkey. This survey aimed to capture the extent and nature of planned changes to assessment in their first year modules, aligned with the UCD First Year Assessment Design Principles (see Table 1). There were 41 modules in the first phase of the project. (As some co-ordinators had more than one module in first year, the full sample of module co-ordinators in the project was 35 staff). 22 module co-ordinators had completed the on-line questionnaire, i.e. a response rate of 62%. These responses represented 31 (76%) of the 41 first year modules on the project. Table 3 sets out the responses by Schools/Programmes on the project.

Table 3: Responses by School/Programme

Architecture Programme	13.6%	3
Social Science Programme	13.6%	3
School of Physics	9.1%	2
Radiography Programme	27.3%	6
Veterinary Medicine Programme	36.4%	8
	Total	**22**

Ethical approval was sought and granted from the institution to carriy-out the research. Participants were assured that their comments would remain anonymous.

5 Research Results

5.1 Programme Leaders' Perspective

In analysing the results of the interviews, some key themes emerged from the data.

5.1.1 Motivation for getting involved in the Project

All of the Programme Leaders identified an existing interest in curriculum review /change and saw the project as a good opportunity to address a number of specific issues for their programme. Concerns about fragmentation across the Stage/Programme as a result of modularisation were cited by a number of participants who saw the project as an opportunity to re-focus on the overall programme ('big picture'). The participating professional programmes regarded the curriculum mapping component of the project as a good preparation for professional accreditation review. Awareness of some problems/challenges with particular modules, highlighted through poor student feedback, was a further motivation for a couple of programmes to engage with the project. The Programme Dean/Head of School was main driver of the project in all cases.

5.1.2 Strengths of the project process

The strengths of the project process are categorised under three main themes: flexible and adaptable approach; the workshops; and the role of T&L team.

Flexible and adaptable approach

While the aims of the project were clearly defined the approach adopted by the teaching and learning unit was seen as very flexible and the project was tailored to the needs of individual programmes. Advance collation and analysis of baseline data relating to the overall programme and assessment across stage 1 modules, which was undertaken by the facilitators and followed by a preparatory meeting with the programme leaders, resulted in the workshops being customised to focus on issues of import to the individual programme.

> "I think the fact that they were adaptable was very important, a real strength"

The workshops

The full-day workshops 'away from the office', though logistically difficult to organise, was identified as an efficient way to work.

> "... the one-day workshop is a very efficient way of focusing, the getting things done in block. If you try to do it in one-hour steps here and there, and you follow-up with paperwork,…it doesn't work".

The involvement of a group of staff with a common interest/purpose (i.e. the programme/stage) facilitated the emergence of shared understanding of the overall

programme and stage outcomes. The staff group extended beyond 'the usual suspects', with all participants having an equal voice.

> "To understand your own programme is very useful because you're tinkering around every day with it, but you don't have a healthy distance, critical view to see what's really happening with the programme. So this exercise was ideal to look back – not look back – look forward – to see where we are heading really".

All of those interviewed reported that the workshops were well-structured and outcome-focused. The curriculum mapping exercise was particularly well-received and there was general consensus among the participants that they could apply the curriculum mapping exercise to other stages/programmes. Professional programmes in particular recognised the potential of the mapping exercise as a means of addressing accreditation requirements.

> "It was a very nice simple approach to it *[curriculum mapping]* …..where in a few hours you could run through a stage in a programme and get a pretty accurate mapping exercise done. So from that point of view it provides use with that tool, and now we have it and have used it with other stages as well".

Other remarked on the value of making connections between programme outcomes, stage outcomes and then looking at what's happening in individual modules.

> "The mapping exercise was very useful….it highlighted the kinds of demands on students and 'bunching' of assessments."

The role of T&L team
All of the participants commented favourably on the role of the T&L facilitators:

> "So if there is someone watching from outside it's always interesting, because first of all they tidy up what you're doing and make sense of it, and second of all they point out to you things that are invisible to you because you are 'native'."

> "It's really useful to have people coming from outside to a close-knit community and asking questions."

Interviewees also emphasised the importance of the exposure to new ideas around assessment and related expertise, seeing this as a key benefit of external facilitation. The post-project development workshop we also welcomed as important enablers of change.

5.1.3 Measuring the success of the project

The primary objective of the project was to redesign first year assessment to specifically address issues such as: overload of assessment; over-reliance on one type of assessment; lack of a Stage or Programme overview of assessment; and disengagement by students. In interviews, participants were asked to comment on (a) any specific changes to first year assessment as a direct result of the project and (b) any other outcomes that emerged.

In the interviews, all participants cited one or more examples of changes to first year assessment as a result of the project, such as: (i) introducing some assessment ***for*** learning activities, mainly in the form of frequent low-stakes assessments; (ii) re-distribution of the weighting for various components of assessment within a module; (iii) some reduction in assessment across Stage 1; (iv) significant revision of assessment in an individual module; (v) implementation of a strategy to manage the timing of assessments across modules to minimise 'bunching'; (vi) development of online resources and associated formative assessment to enhance student engagement. While acknowledging these positive developments, the over-riding feeling among programme leaders was that the extent of

changes implemented was limited and that a radical revision of assessment across the stage had not occurred (yet).

> "We knew already there were a couple of modules that we weren't completely happy with the mode of assessment, and we have restructured those as a result of going through assessment redesign."

> "We said we would assess less but not sure if/when this will happen."

> "Change takes time – at least two-three years".

The programme leaders identified other tangible outcomes from the project, which many perceived to be at least as valuable (if not more so) than specific changes made to first year assessment. The articulation of programme and stage outcomes was regarded by a number of participants as significant project outputs:

> "The more we zoned in on the first year modules and what we would do differently it felt like the law of diminishing returns. The 'big picture' programme stuff was great, but when it came down to 'just change that bit in that module', it was like 'so what'."

> "There is no point in having programme outcomes if you don't have the building blocks towards those."

Three of the five programmes introduced a new stage 1 core module aimed at introducing students to some fundamental concepts of their chosen discipline and supporting transition to university learning.

5.2 Stage 1 Module Coordinators' Perspective

The project was informed by the nine First Year Assessment Principles (see Table 1) and co-ordinators were introduced to these in the final workshop as part of the process. The survey explored the extent to which they planned to implement changes in these areas. Note that the original Assessment Principles 1 and 2 are collapsed into an overall question on Assessment ***for*** learning, as was done in workshop 3 in the project. The co-ordinators were asked whether they planned to use these *at all, a little, or alot* (See Table 4)

Table 4: Assessment Design Principles in order of Intention to Implement (n= 22 coordinators)

Assessment Design Principles	**W***	**N**	**%**	**Assessment Design Principles** (Table 1)
Consider the demands of other parallel modules in the stage when planning my assessments.	34	14	64%	3
Reduce assessment work-load for staff, i.e. attention to word-count, reducing number of submissions.	33	11	50%	3
Design a more efficient and effective sequencing of the learning and assessment activities, i.e. focus on the sequence of lectures/tutorial/labs/on-line learning and assessment.	30	10	45%	7
Reduce assessment workload for students, i.e. reduce number or size of assessment tasks.	30	8	36%	9
Allow more assessment FOR learning opportunities, i.e. in/out of class activities where the primary focus is to allow students to get feedback on their progress.	30	12	56%	4 & 5

Introduce more authentic assessment, i.e. use of assessments that reflect the subject/discipline in real-life, relevant contexts.	28	9	41%	8
Develop multiple opportunities for collaborative learning, i.e. peer or group work (assessed /not assessed).	25	7	32%	6
Create more time for introducing learners to the key challenging discipline or subject concepts, i.e. module is organised by themes/threshold concepts, etc.	24	7	32%	1

Note: W*= The weighting to include the amount (a little, a lot) , N= Number of co-ordinators who applied this principle to their module(s)

The four highest weighting (W*) statements that they planned to address all related to the efficiency (reduction/streamlining) of assessment (see Table 4). Interestingly, the most popular approach to this was '*considering the demands of other parallel modules when planning their assessments',* mentioned by 14 (64%) of the module co-ordinators. Given that the sample of 22 staff represents 31 modules, this figure could account for around 17-19 of the modules that had this principle applied to them. The intention to allow for more Assessment ***for*** learning opportunities was also an intended action by 12 (56%) of these co-ordinators. In exploring this in more details, the survey also teased out the approaches/activities that these staff hoped to use. There was a good range of new activities to be introduced (2012/2013) that would assist students in monitoring how well they are doing in their learning. Many were to be done as in-class activities. The in-class quizzes, in-class discussion group and other in-class group work were to be introduced by many (between 7-10) of the staff. Given that the sample of 22 staff represent 31 modules, this figure could account for around 13-15 of the modules that introduced these activities. Interestingly this appears to be implemented despite the large class sizes mentioned by many in the survey. The use of the on-line environment for formative MCQ's (including those with some additional feedback) and some problem-solving activities were quite popular activities, yet blogs and discussion threads were not introduced by anyone.
In summary, the modules coordinators, in particular planned to improve the efficiency of their 1st year assessment approaches, and planned to use a range of assessment ***for*** learning activities.

6 Discussion and Conclusions

Both sets of data acknowledged that there were planned changes for first year modules in relation to increased assessment ***for*** learning activities and an improvement in efficiency in staff and student time. Both programme leaders and the module coordinators reflected on the importance of awareness of assessment activities of other modules, across the stage and/or the entire programme. The project appeared to be successful in using a collaborative and discipline-based process (Healy et al, 2013) that supported a strategic approach to assessment (Knight, 2000; Mutch, 2008, Ross, 2010).

There was very positive feedback on the curriculum mapping tool, particularly in relation to its simplicity and its use in stimulating discussion and reflection on overall curriculum design. This contrasts with the experience of other curriculum mapping tools which have been criticised for: (a) emphasis on audit function; (b) complexity; (c) perceived lack of relevance to the discipline.

There would appear to be a different emphasis in the perceived outcomes of the project between the two groups. The programme leaders highlighted the value of a strategic overview of the programme and the opportunity to reflect on the programme in its entirety. They believed that the modest changes to first year assessment were less significant project outcomes. In contrast the module coordinators (n=22) reported a range of planned changes

to first year assessment. The extent of implementation of these changes needs further research. In relation of the differing perspective around the key outcomes of the project and the extent of revision to first year assessment, this could be explained by the differing roles of the two groups.

Although the extent of changes to first year assessment need further investigation, the longer term impact of a more strategic review of the programme, which engaged a wider group of staff, has the potential for strategic curriculum change. There is some evidence emerging from the participating programmes of curriculum innovations that were stimulated by discussions over the course of the project.

The process designed by UCD T&L focused on a macro approach to curriculum change which actively involved a wider community of colleagues in sharing their practice and reflecting on innovative design ideas. Dempster et al (2012) maintain that this approach to curriculum has "the most potential for sustaining innovation curriculum designs" (p 136). The flexible and adaptable approach adopted by UCD T&L, which allowed for customisation of the project to the programme context, emerged as a key characteristic of the success of the process and is consistent with the finding of Blackmore and Kandiko, 2012.

The participants maintained that the workshop format was an efficient way of working collaboratively to achieve curriculum change. Similar models such as the Course Design Intensive (CDI) model developed by Oxford Brookes University have produced evidence of success in fostering innovation as well as being efficient. These models maintain that "learner-centred, evidence informed design, developed in the peer-supported environment, is fundamental to successfully embedding new modes of delivery or pedagogic innovations." (Dempster et al, 2012, p 135).

7 Summary and Key Recommendations

This project was generally well received by the participants who noted its strategic impact on curriculum design including changes to first year assessment. The flexible, focused and evidence based approach were the hallmarks of this successful intervention. Some key recommendations for similar projects include:

- This programme review process is transferrable to other strategic projects locally and internationally
- Consideration needs to be given to the balance between the long-term impacts of a more strategic approach versus the achievement of immediate module-level changes. Ultimately the balance will be driven by local priorities and context.
- Further research on the curriculum mapping tool needs to be carried-out and disseminated.

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