



## **11th European Quality Assurance Forum**

**17–19 November 2016**

### **Quality in context – embedding improvement**

**Paper proposal form**

**Deadline 25 July 2016**

*Please note that all fields are obligatory. For a detailed description of the submission requirements and Frequently Asked Questions please consult the Call for Contributions.*

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#### **Short bio (150 words max):**

Professor Jim Walsh is Vice-President for Strategy and Quality at Maynooth University. He has extensive experience in quality assurance and enhancement, and also in institutional research. He led the first academic department quality review in Ireland in 1996 and later in 2009 he led the first institutional quality review for the Irish Universities Quality Board. He has been an active supporter of the Irish Survey of Student Engagement from the beginning and leads its implementation and analysis within Maynooth University. Prior to his appointment as Vice-President in 2005 he was Professor and Head of the Geography Department for ten years, during which he was a founding member of the National Institute for Regional and Spatial Analysis. He has contributed as author or editor to more than 170 academic publications on rural and regional development in Ireland, spatial planning in Ireland and Europe, and mapping of population census data.

#### **Proposal**

**Title: A Research and Evaluation Framework to Monitor Impacts of Curriculum Reform in Maynooth University**

#### **Abstract (150 words max):**

Many higher education institutions are revising, and in some cases reforming, their undergraduate curricula with an objective of providing a higher quality education experience to students. The literature on tertiary level curriculum change has tended to focus strongly on how change processes are initiated, the design of alternatives, and the resources required for implementation. Much attention has also been given to the importance of leadership and the engagement of staff, students and other stakeholders. There has been much less attention to monitoring, review and evaluation. This paper draws upon recent experience in Maynooth University to develop a research and evaluation framework for monitoring the impacts of a comprehensive university-wide reform of the curriculum. The focus is on the purpose of an evaluation in this context, what should be



evaluated and how? who should be included? and at what stages in the project should the research and evaluation occur?

**The paper is based on:** Research

**Has this paper previously been published/presented elsewhere?** No

**Text of paper (3000 words max):**

## **A Research and Evaluation Framework to Monitor Impacts of Curriculum Reform in Maynooth University**

### **Introduction**

The national and international contexts for higher education are changing in ways that have led many universities to review and reform their undergraduate curricula. A relatively small number of highly innovative and ambitious institutions have emerged as international benchmarks - they include the University of Melbourne, Brown University, Harvard University, University of Chicago, University of Wisconsin at Madison, University of Aberdeen, University of Southampton, University of Warwick and King's College London.

Notwithstanding the success of the leading universities there is surprisingly little published research on the outputs and impacts of major curriculum change initiatives. Blackmore and Kandiko (2012) assert that for many getting the curriculum changes approved by university statutory bodies was a sufficient measure of success. They add that in many cases it seems that *'the curriculum change process was so gruelling and implementation so time-consuming that there seemed to be little energy left over to attempt to evaluate the process'*.

The aim of this paper is to outline a research and evaluation framework devised for researching and monitoring the impacts of a comprehensive university-wide reform of the undergraduate curriculum in Maynooth University in Ireland. The Framework has been devised in a manner that is consistent with international standards for quality assurance where the quality of the student educational and experiential learning experience is central.

### **Context**

Maynooth University has a distinguished history of undergraduate education which it plans to develop even further. It has an enrolment of c.11,500 students taking programmes in arts and humanities, social sciences including business and law, and the natural sciences including computer science and electronic engineering. Approximately 80% of the students are undergraduates.

Students at Maynooth University have consistently rated very highly the quality of their entire educational experience. According to the 2015 Irish Survey of Student Engagement (ISSE) 82% of final year undergraduates at Maynooth rate their entire educational



experience as either 'good' or 'excellent', compared to 77% for final year undergraduates in all Irish universities.

There is always scope for improvement: the ISSE identified areas that merit further attention such as aspects of the pedagogic experience, experiential learning, preparation for employment. More generally there has been an awareness for some time of the challenges that many first year students encounter in the transition to university, and there are frequent commentaries by external agencies on the preparedness of graduates for employment.

The University *Strategic Plan 2012-2017* includes a commitment to "*conceive, develop and deliver a distinctive Maynooth model of liberal education, forming graduates competent in their chosen disciplines, with the fundamental intellectual skills of analysis, reflection and critical thinking, and fostering an appreciation of the breadth and richness of human culture and knowledge*". This statement acknowledges both the intrinsic and instrumental roles of higher education, and places the focus firmly on the formation of students rather than on how the university can serve the immediate needs of the economy, while recognising that preparation for employment is very important.

In the academic year 2012/13 the University embarked on a major reform of the undergraduate curriculum led by the President and coordinated by a Curriculum Commission that included representatives of staff and students from across the University. Following extensive internal and external consultation, and guided by experience from other universities outside Ireland that have recently reformed their undergraduate programmes, the Commission prepared a report that, following extensive discussion and consultation, was approved by both the Academic Council and the Governing Authority of the University, and which now provides the framework for the future Maynooth Curriculum.

The distinctiveness and innovativeness of the Maynooth Curriculum Initiative is based on:

- A unique first year academic programme that permits flexibility in the number of subjects taken, provides opportunity to take modules on critical skills, and combines lectures with small group learning to support students' transition to university. While maintaining a clear focus on educating students to achieve core competencies in their chosen disciplines the academic content of the first year programmes in all disciplines is also being reviewed,
- Greater flexibility and choice, with the ability to take major and minor options within most degrees, and also more opportunities to combine subjects across the arts and sciences,
- Opportunities to take elective module options outside a student's core discipline,
- Extensive experiential learning opportunities through accredited co-curricular activities such as work placement, volunteering, or study abroad,
- Opportunities to pursue a modern language as a component of any degree,
- Support for e-portfolios to capture students' cumulative achievements over the course of their degree.



Through this Curriculum model Maynooth University students will be prepared to achieve a unique suite of Graduate Attributes that were developed in consultation with students, staff, and external stakeholders including employers. On completion of their degree, Maynooth graduates will have had a thorough education in the important knowledge, skills and insights of their disciplines, and will have developed fundamental intellectual skills of analysis, synthesis, critique and communication.

Within departments all undergraduate programmes have been revised to facilitate a redesign of the structure and content of first year offerings. The first year critical skills module and a sample of second year elective modules were piloted in 2015/16. Full implementation will commence in 2016/17.

### **Evaluation of Curriculum Change**

Changes in the international and national contexts for higher education, the trends towards massification, the increasing specialisation of knowledge and skills, and the growing credentialism of workforce entry and personal advancement, combined with enhanced competition between universities, have all contributed to the emergence of a new phase of reflection on the purpose of university education and a growing body of international literature on curriculum change. Comprehensive overviews have been provided by King's College London researchers Paul Blackmore and Camille Kandiko in their 2012 book on *Strategic Curriculum Change* and in their detailed 2011 report on the King's College-Warwick project on *Creating a 21<sup>st</sup> Century University*. Researchers at Lancaster University have comprehensively examined the practice of evaluation in higher education and drawn on experience from several universities which is collated in a volume edited by Murray Saunders, Paul Trowler and Veronica Bamber on *Reconceptualising Evaluation in Higher Education – the Practice Turn* (2011).

A recurring theme throughout much of the literature is that there are many drivers of curriculum review and reform. The most positive drivers for developing an environment for change include widening the breadth of the curriculum, increasing student choice and simplifying and streamlining degree options. An important conclusion from the surveys by Blackmore and Kandiko is that the universities that have had the greatest success in their curriculum change initiatives tended to have a clear view of the nature of their current curriculum and its strengths and weaknesses.

The literature on curriculum change has tended to focus strongly on how change processes are initiated, the design of alternatives, and the architecture and resources required for implementation. Much attention has also been given to the importance of leadership and the engagement of staff, students and other stakeholders. Surprisingly, there has been much less attention to monitoring, review and evaluation. Few institutions have put new metrics in place and many seem to intend to continue relying only upon current student evaluation surveys.

A research and evaluation process requires clarity in relation to its purpose and also in relation to what should be evaluated, the methodologies that might be used, who will



participate in the evaluation process, when or how often it will happen, and what will be the management and governance of the process.

**Purpose:** The purpose of evaluation is to provide reliable and unambiguous evidence to support critical decisions on whether, or how, the Curriculum is enabling students to achieve outcomes that are aligned with the Curriculum objectives. An evaluation process needs to be able to inform policy and management decisions at a high level in the university and also decisions by the lecturers, programme managers, and students in relation to the choices they make. The evaluation process should support ongoing learning at all levels of the university regarding curriculum, pedagogy and teaching and learning practices and conditions. The evaluation of a large project characterised by a high level of complexity in a context of diverse local cultures within an institution must also be flexible enough to detect and build upon unanticipated outcomes.

**What should be evaluated?** Each of the key components of the Curriculum should be evaluated, separately and collectively, and progress towards the achievement of the graduate attributes should be monitored and measured on an annual basis. In addition to the specific changes in the curriculum structure, the evaluation process should also assess the extent to which complementary institutional procedures (e.g., internal resource allocation, academic quality reviews, staff development, and external examiner reports) are congruent with the direction of change required by the curriculum. The evaluation should in broad terms include the student experience of the new curriculum and especially of the innovative components, changes in approaches to teaching and learning, changes in support systems and consideration of their appropriateness for achieving the curriculum objectives and for the development of graduate attributes.

**How will the evaluation be undertaken?** Universities regularly undertake monitoring, and reviews related to accreditation of programmes, departmental quality assurance procedures, and effectiveness of institutional quality processes. These are complemented by student surveys. These are all important sources of information on how well the university is progressing towards achieving its strategic goals, one of which may be to design and implement a new undergraduate curriculum. In addition to what is already being done, the evaluation of impacts of curriculum change is likely to require additional quantitative and qualitative data and analysis. A number of guiding principles have been agreed for the curriculum evaluation project.

- Evaluation in higher education is defined as a social practice involving systematic collection, analysis and sharing of information about the activities, characteristics, and outcomes in a specified domain such as teaching and learning, in order to make judgements about progress towards the achievement of stated objectives, and to inform decisions to enhance the effectiveness and efficiency of implementation initiatives, (adapted from Saunders, Trowler and Bamber, 2011, *Reconceptualising Evaluation in Higher Education*);
- In order to gain most from the evaluation, it will be designed to encompass both summative and formative components. The summative dimension can be monitored and evaluated via performance metrics that will need to be established



at the outset in order to provide a baseline against which later changes can be evaluated;

- Formative evaluation provides an opportunity for collaborative and iterative on-going learning throughout the implementation process. This approach usually relies on both quantitative and qualitative data obtained via surveys, focus groups and /or interviews. The viewpoints, perceptions and expectations of key internal and external stakeholders can be evaluated in a process whereby the draft findings that pertain to each stakeholder are shared with others, and following feedback each stakeholder can refine their position;
- The curriculum consists of many components, some of which are changing at different paces and many of which are inter-related. In this context it may be very difficult to establish direct causality between one aspect of curriculum change and improvements in evaluation metrics, or to isolate changes in performance which may arise simply due to an enhancement of business-as-usual. The complexity of the interdependencies between the components of a multi-dimensional curriculum is such that establishing causality will require a sophisticated multi-variate statistical methodology using data from matched samples of students;
- Consideration will also need to be given to monitoring and evaluating impacts that may have been unanticipated at the outset – for example the implementation process may accelerate the need for a new department resource allocation model to incentivise and reward reform.

**Who should participate in the evaluation?** Comprehensive curriculum change involves many individuals, some in personal roles, and others in institutional / representative roles. The revised curriculum is the outcome of a process initiated and managed by senior officers of the University. They articulate the vision, manage the process of securing agreement on key initiatives, drive the implementation strategy and will ultimately be held accountable for the overall success or failure of the project or its constituent parts. The leaders and those that directly assist them will be included in the evaluation. It will be helpful to document and analyse how they perceived their roles at different stages, what modifications or compromises were made.

The staff directly involved in delivery of the curriculum initiatives, and staff in related support offices will also be included. Successful implementation of the entire curriculum is likely to involve changes in pedagogy and perhaps also in approaches to assessment of students, and in the academic, administrative and professional supports provided. The extent to which the staff buy into the entire project and possibly become champions, will also merit assessment. Since the period from the project inception to the close of the first cycle of implementation may take up to seven years it will be necessary to anticipate changes in key actors throughout the process as staff change roles, leave or retire. The evaluation process will seek to include all staff who may have participated at some stage in the project.



Students are the intended principal beneficiaries from curriculum change. The achievement of the desired outcomes for students will be influenced by the extent to which they engage with the new opportunities that will arise. The evaluation will seek to monitor the numbers that avail of the new opportunities (e.g., critical skills modules) especially if students can opt to avail or not avail of the more innovative features of the curriculum, and it will also seek to elicit information on potential reasons for availing of, or avoiding, the opportunities. In order to test for differences between participants and non-participants in the new opportunities available it may be necessary to select matched samples.

Almost every international study confirms the importance of engaging with a variety of external stakeholders (employers, schools, parents) in the early stage of the curriculum change and also maintaining that engagement throughout and following the first implementation cycle.

**When should evaluation occur?** Hubball and Pearson (2011) have proposed a framework for conceptualising four key phases of curriculum evaluation that are related to context, process, completion and follow-up. The context phase comes at the beginning when the University assesses the current curriculum, identifies strengths and weaknesses, considers feedback from internal and external stakeholders, reviews experiences in other universities and embarks on a curriculum change project.

Process and impact evaluations occur between the commencement and completion of the first cycle of implementation. Preparatory baseline data collection should occur in the year prior to commencement and in practice evaluation may need to be extended beyond the first cycle to allow time for learning and adaptation by the University, the staff and students. Process and impact evaluations will include both formative and summative approaches, and are likely to be iterative.

Follow up evaluation occurs some years after the commencement of implementation. It may take several years for evidence to accrue in relation to anticipated longer-term outcomes for students which may be both gradual and cumulative. This aspect may require a longitudinal approach to data collection.

### **Implementation**

The preparation of an Evaluation Framework for the Maynooth Curriculum Initiative was guided by the key innovations in the curriculum, the lessons from the literature on successful models of curriculum change in other universities, and by the range of data already collated and the feasibility of collecting additional data. A draft Evaluation Framework was prepared which includes for each component of the Curriculum, described as an Evaluation Field, a number of indicators of potential impacts. A methodology and data source is proposed for each indicator from which tangible outputs can be created that will provide a guide to the outcomes that may be expected over a period as more cohorts of students benefit from the Curriculum and staff become more experienced in its delivery. The proposed framework involves both summative and formative components and is intended to be comprehensive in scope, collaborative in practice, iterative and dynamic in



implementation and extend over all stages of implementing the Curriculum – examples of components of the Framework will be included in the presentation linked to this paper.

Many of the proposed indicators can be compiled from data already collated by the University via the registration records held for each student, the academic database, and the data from surveys of students. The Irish Survey of Student Engagement (ISSE) is an important source of data for many issues addressed in the Curriculum. The possibility of tracking trends over time in Maynooth and benchmarking Maynooth against other universities in Ireland is a major benefit provided by the ISSE.

Some aspects of the Curriculum will require feedback via surveys or focus group discussions – for example, the effectiveness of the critical skills modules and how they are delivered, the impact on disciplines of more flexible programmes and greater student choices. It is also envisaged that the content of reports required from External Examiners may need to be reviewed so that they can become an even more valuable resource for benchmarking academic standards in Maynooth University.

### **Governance and Management of the Research and Evaluation Project**

Oversight of the project will be provided by a small Steering Group of experienced researchers and also including a representative of the students. The Steering Group will be Chaired by the Dean of Teaching and Learning. A postdoctoral level researcher has been appointed to undertake the research and evaluation. She will report to the Director of Quality in order to remain independent of all stakeholder groups including members of the University Executive, and also to ensure that the focus on enhancing the quality of the student experience is maintained.

### **References:**

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**Discussion questions:**

1. What are the main drivers of undergraduate curriculum reform in other countries?
2. What are the particular challenges for quality assurance in a comprehensive university-wide curriculum reform? What are the challenges for students and staff?
3. Are there examples from other universities where the issue of causality has been addressed?

*Please submit your proposal by sending this form, in Word format, by 25 July 2016 to [QAForum@eua.be](mailto:QAForum@eua.be). The file should be named using the last names of the authors, e.g. Smith\_Jones.doc. Please do not send a hard copy or a PDF file.*