



12th European Quality Assurance Forum

23 - 25 November 2017

Responsible QA: committing to impact

Author(s)

Names: David O'Sullivan

Position: Quality Director

Organisation: National University of Ireland Galway and Irish Universities Association Quality Officer Group

Country: Ireland

Names: Elizabeth Noonan

Position: Quality Director

Organisation: University College Cork and Irish Universities Association Quality Officer Group

Country: Ireland

Names: Roisin Smith

Position: Quality Director

Organisation: Trinity College Dublin and Irish Universities Association Quality Officer Group

Country: Ireland

Names: Aisling McKenna

Position: Quality Director

Organisation: Dublin City University and Irish Universities Association Quality Officer Group

Country: Ireland

Names: Roy Ferguson

Position: Quality Director

Organisation: University College Dublin and Irish Universities Association Quality Officer Group

Country: Ireland

Names: Gary Walsh

Position: Quality Director

Organisation: University of Limerick and Irish Universities Association Quality Officer Group

Country: Ireland



Names: Siobhan Harkin

Position: Quality Director

Organisation: Maynooth University and Irish Universities Association
Quality Officer Group

Country: Ireland

E-mail address: dos@nuigalway.ie

Short bio: The Irish Universities Association Quality Officers Group (IUAQOG) represents the quality directors responsible for implementing QA policies in all seven self-governed and self-accrediting Universities in the Republic of Ireland. The IUAQOG quality officers collaborate together on national quality assurance issues such as benchmarking, best practices and policy development. The Universities included in the IUAQOG are: National University of Ireland Galway, University College Cork, Trinity College Dublin, University College Dublin, Dublin City University, University of Limerick, and Maynooth University.

Proposal

Title: Managing the Impact of Internal Quality Review in Irish Universities

Abstract:

Establishing causality between internal quality review (iQR) and impact is important not only for enhancing responsible behaviour but also for demonstrating that quality assurance (QA) has value. Impact is both qualitative and quantitative. Qualitative impact, for example evidence of action plans and changes, is initially easy to demonstrate. Quantitative impact, as evidenced through changes to key performance indicators (KPIs) is significantly more challenging. Implementation of actions is typically a non-linear process i.e. there may be many adjustments and iterations to the action over time and attribution of enhancement to iQR alone is simplistic. The identification and selection of KPIs is key for informing the iQR process, stimulating ideation and later when attempting to quantify the impact of QA. This paper presents a study of approaches to managing impact related to iQR within the Irish University sector that may contribute to more responsible QA.

The paper is based on: Research and Practice



Introduction

Internal Quality Review (iQR) is a core process used in higher education institutes (HEIs) for the Quality Assurance (QA) of research, teaching and services. Key elements of the iQR process are defined by the General Model (VanVught & Westerheijden, 1994) and also by the Standards and guidelines for quality assurance in the European Higher Education Area (ESG) (ESG, 2015) that include self-assessment and peer review. Both of these elements rely on key performance indicators (KPIs) to provide evidence of “relative quality” (Harvey & Green, 1993, p. 10) and that can also be used later to assess the long term impact. Two perspectives can be used when defining impact – qualitative and quantitative (CUC, 2006). Qualitative impacts include such evidence as review recommendations and later process enhancements. In the context of iQR these enhancements may be to the teaching and learning process but may also occur to the process of QA itself. Providing evidence of quantitative impact, through for example key performance indicators (KPIs) or metrics, is challenging. A key first step in overcoming this challenge is selecting appropriate KPIs that can inform the self-assessment, peer review and idea generation processes. Selecting KPIs requires, among other things, that they reflect the perspectives of key stakeholders. Meeting the needs of different stakeholders presents a “power struggle” (Barnett, 1992) where each group vies to have their voices heard during the iQR process.

Figure 1 presents an illustration of the interactions between stakeholders, the iQR process and resulting impact. The process begins with meeting the needs of key external and internal stakeholders that includes for example the management agent, funding body and higher education institution among others. Stakeholders inform both the regulations and strategies for change and the desired outcomes or impacts. The iQR process ultimately leads to action plans that when implemented effectively change processes, cultures and performances. This implementation, it can be argued, leads to specific short and long-term impacts.

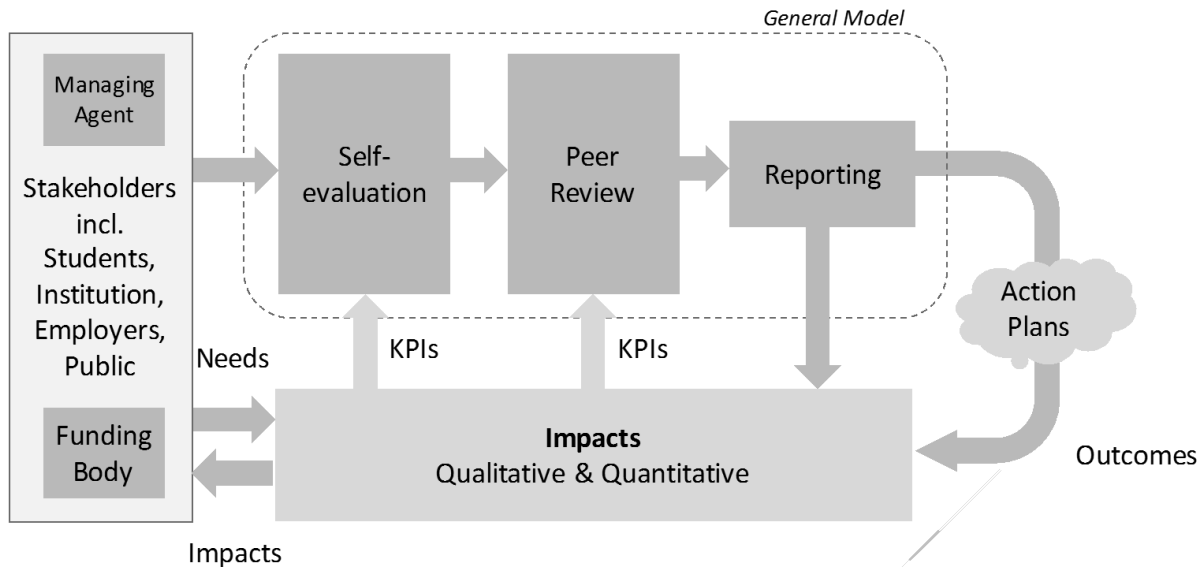


Figure 1: Internal Quality Review and Impact

The purpose of this study is to review the topic of impact related to the iQR process and to contribute to the debate on ways of selecting KPIs that may lead to more responsible QA and greater impact. The study focusses on practices and emerging ideas within seven Irish Universities. The scope of the research is limited to learning and assessment as defined by the ESG and excludes research and services for brevity. The study begins with a short literature review and then presents the results of discussions among a number of quality assurance professionals responsible for implementing QA policies within the Irish Universities.

Literature Review

The impact of iQR on teaching and assessment requires an initial exploration of the key concepts involved i.e. quality, quality assurance and impact. Quality in higher education has many definitions depending on the perspective adopted and has been classified around four key themes as (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015): (1) quality as fitness for purpose or conforming to a desired standard; (2) quality as a measure of excellence or exception among peers; (3) quality as an indication of accountability in terms of delivery of say teaching and optimisation of resources and finally; (4) quality as being transformative or a process of enhancement or continuous improvement. These four themes are not mutually exclusive i.e. quality may be defined as all four simultaneously. Also, the first three can be described as states or events whereas the fourth



'quality as transformation' is a change process that ultimately leads to the first three.

With these definitions in mind one can construct a definition of quality assurance (as opposed to quality) as follows:

Monitoring and review of processes in a way that positively transforms them into being more purposeful and accountable and that can assist in making informed judgements regarding exceptional standards.

In this statement all four key words are bound together by the process of 'monitoring and review' as outlined in the ESG. ESG defines monitoring and review as the process where HEIs "periodically review their programmes" leading to "continuous improvement" and that any "action planned or taken as a result should be communicated to all those concerned." This approach closely adheres to the General Model of quality assurance (VanVught & Westerheijden, 1994).

Quality Impact

Following the general model, the iQR process is informed by the needs of one key stakeholder - the managing agent. In reality many others are involved including Regulators, Institutional Strategy, Students, Research Funding Agencies, Accreditation Bodies, Employers and the Public. These stakeholders inform the desired outcomes and impacts of iQR (Green, 1994). One useful approach to understanding the concept of impact is presented in the Logic Model illustrated in Figure 2 (Kellogg, 2004). The Logic Model defines five steps in a transformation endeavour, such as QA, culminating in impact. Describing the figure in the context of iQR, resources and inputs initiate the process and include budgets, regulations, feedback and strategies. These inputs create a chain of events illustrated as series of 'causes and effects'. Inputs lead to Activities such as self-assessment, peer review or internal policy development that in turn causes Outputs such as review recommendations or new/revised policies. These outputs in turn cause Outcomes such as Actions Plans or policy implementations that in turn lead to Impacts such as enhanced processes and/or measureable improvements to specific key performance indicators (KPIs). In this regard there are two kinds of eventual impact - qualitative and quantitative respectively (CUC, 2006).

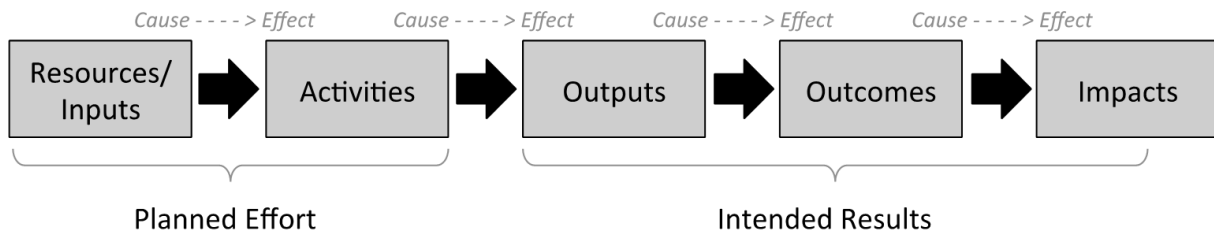


Figure 2: Logic Model. Adapted from (Kellogg, 2004).

The relationship between the cause and effect between iQR activities and impact is problematic (Harvey, 2006; Harvey & Green, 1993). Harvey for example describes the outcomes of an INQAHE workshop among European quality assurance agencies that discussed linkages between quality review (QR) and impacts. He summarised the deliberations as being based more on opinion than justified belief and much less, hard evidence. A number of other studies have also found methodological difficulties of relating QR with impact (Liu, Tan, & Meng, 2015; Stensaker, 2003; Tam, 2001). The following is a summary of the difficulties cited:

- Time lag between iQR process and any resulting impact
- Actions are non-linear i.e. they are iterative and adjustable.
- Any single impacts can be attributed by many potential processes including Strategic Planning, Leadership, Student Feedback, etc.
- Actions may be 'seeded' into the iQR process during review by for example strategic planning

These reasons make it clear that positivistic causal links between iQR and impact is almost impossible to prove. However, on the other hand, it's clear that positive changes or enhancements do occur and one can be forgiven for arguing that iQR at least makes some contribution. Finally, establishing causal links may be impossible but it may be equally difficult not to be able to attribute causality. iQR, Strategic Planning, Student Feedback, Leadership and other approaches frequently become blended into a single change paradigm throughout a whole HEI.

The topic of key performance indicators (KPIs) is synonymous with measuring quantitative impact as related to iQR. According to one source (Schindler, Puls-Elvidge, Welzant, & Crawford, 2015):

"Adequately defining quality requires both a broad strategy to target central goals and outcomes and a specific strategy to identify quality indicators ... to assess whether goals have been achieved" (p.6)



Much has been studied about KPIs in higher education. The CUC Report (2006) for example studies the monitoring of institutional performance in higher education and the National Centre for Social and Economic Research report looks at how to measure higher education (Pollard, et al., 2013).

Research Methodology

The purpose of this study is to develop an understanding of how HEIs in the Republic of Ireland currently view and manage impact around the process of iQR. The methodology adopted involved engaging key personnel responsible for implementing iQR at all seven Irish Universities in sharing their experiences, practices and perceptions. In compiling data for this report, each participant was asked to reflect on the question “how is impact used and measured in the iQR process?”. Participants met on three occasions to discuss the research question and were also invited to review findings and make further comments. The seven Universities who participated in the study were: National University of Ireland Galway, University College Cork, Trinity College Dublin, University College Dublin, Dublin City University, University of Limerick, and Maynooth University. These Universities are labelled hereafter as Case A, B, etc. for anonymity.

Research Findings

Before presenting findings we present a little context for the Irish University sector. Whilst Irish universities are self-governing and self-accrediting, it should be noted that some important interventions by funding agencies have recently begun to shape the sectoral dialogue around KPIs. These include the introduction of a system performance framework, by the main funding agency – the Higher Education Authority (HEA). This is in the form of performance based funding derived from assessment of institutional compacts setting out key strategic objectives and indicators of their achievement across various domains (Higher Education Authority, 2016). Funding is contingent on assessment by the HEA of institutional achievement over a two-year cycle. In addition, the Universities are required to comply with key government statutes that include core statutory guidelines for QA overseen by a national managing agent - Quality & Qualifications Ireland (QQI). The Universities provide annual reports on their procedures and outcomes for QA to both the QQI and also to each University’s own Governing Authority. Review of these reports has begun to stimulate wider discussions about the forms of quality indicators in use by institutions. Finally, and perhaps highlighting the difficulty of finding quantitative impacts, a recent report by the QQI entitled “Quality in an era of diminishing resources” found evidence of qualitative improvements to



quality in the Irish University sector counteracting the significant negative impact of the global financial crisis that resulted in significantly reduced resources in the sector beginning in 2009 (QQI, 2016). The Irish Universities Association Quality Officers Group has harnessed these emergent issues as the basis of this paper. It should be noted there is no nationally agreed set of KPIs for measuring the impact of quality in the Higher Education in Ireland.

Assuring and Providing Quality

A key research question arising during early discussions was the definition of core processes regarding impact. A simple model, based on the structured analysis and design technique (SADT) (Ross, 1977), provided some insight. Figure 3 illustrates two major generic processes for the activities that take place. The 'Assure Quality' activity is akin to the activities of monitoring and review by both the managing agent but also by the staff responsible for running the school or programme. This activity is controlled by the need to meet external regulations and also the strategy of the institution that in the Irish context includes the so called compact agreements with the external funding agency. For self-governed Universities there is a tension between external regulations and institutional strategy, as institutions respond to public policy, but also exercise their autonomy. Inputs to this activity include stakeholder requirements that include feedback from students and the results of various surveys including the national Irish Survey for Student Engagement (ISSE). The 'Assure Quality' process conducts a number of internal sub-processes that include annual monitoring, periodic quality reviews and the development of detailed policies and procedures (P&Ps). The outputs of this activity include Action Plans mainly arising from reviews but also from various related processes such as the External Examiner process. Another key output is the reporting of so called QA Impacts that include data on reviews, reviewers, compliance results and so on – both qualitative and quantitative.

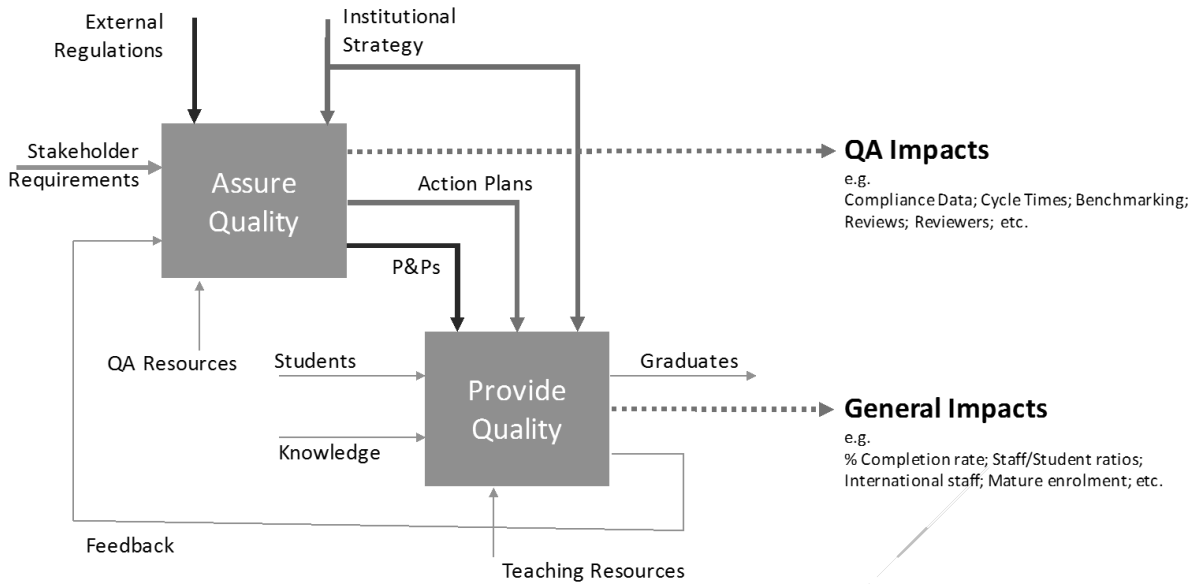


Figure 3: Assure and Provide Quality

The second major activity in the SADT model is the 'Provide Quality' activity that represents the provision of learning programmes. These programmes essentially transform the inputs i.e. students and knowledge into outputs i.e. graduates with specific skills and learning attributes. This activity has many controls but in the context of this discussion, controls mainly include P&Ps (that inform behaviour), Action Plans (that define agreed changes) and Institutional Strategy. One of the major outcomes from this activity are so called General Impacts such as impacts on student engagement, satisfaction and completion rates. Another outcome is feedback with the 'Assure Quality' activity. The model presented in Figure 3 is partial and incomplete but serves to highlight the distinction between both QA Impacts and General Impacts. Further details of both activities illustrated in Figure 3 can be discerned with reference to ESG that arguably contains two subsets of activities i.e. policies for providing quality (sections 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8) and policies for assuring quality (section 1.1, 1.9, 1.10).

Selecting KPIs for iQR

A second key question that arose from the study was how to select General KPIs that may help to inform and later measure the impact of IQR. This stage identified four factors to be considered by Higher Education Institutes:

1. Identify Stakeholders and their Needs
2. Distinguish between qualitative and quantitative impacts



3. Choose Reliable and Independent Data Sources
4. Reflect the Full Cycle of Provision

Expanding each of these four factors in turn:

- (1) In the Universities studied six generic key stakeholder groups were identified and the kinds of needs that may help inform the KPI selection process. The stakeholders and needs are presented in Table 1.

Table 1: Key Stakeholders for iQR at Irish Universities

Stakeholders:	Needs defined largely by:
Regulators	Standards & Guidelines and Professional Accreditation
Institution	Strategy and Policies & Procedures
Students	National Surveys and Internal Student Feedback
Funding Agency	Statutes and Regulations and Compact Agreements
Employers	National Skills Surveys; Advisory Boards; ...
Public	International Rankings and Press & Media

- (2) Distinguishing between qualitative and quantitative impacts requires an understanding of what can be described or numerated (qualitative) versus what can be measured and ideally improved (quantitative). Examples of impacts illustrated during discussions are presented in Table 2.

Table 2: Examples of Impacts

	QA Impacts	General Impacts
Qualitative	<ul style="list-style-type: none"> Internal Quality Reviews Student Surveys External Examining Policies and Procedures Operational Plans Benchmarking Actions Plans 	<ul style="list-style-type: none"> Changed curricula New or revised programmes Better arrangements for teaching New teaching approaches Better programme information Student engagement Impact Case Studies
Quantitative	<ul style="list-style-type: none"> Number of reviews Profiles of reviewers Review cycle times % Compliance to P&Ps Additional staffing, budgets, equipment, buildings, etc. 	<ul style="list-style-type: none"> Entry standards Student-staff ratio % Honours degrees % Completion rates Student surveys

- (3) Choosing reliable and independent data sources was seen as key to selecting KPIs. Chief among these data sources were national student surveys, funding agency statistics, key data from University services such as student admissions and examinations, student surveys such as the international student barometer and international rankings. Ease of access and simplicity of use of these data were also regarded as key selection factors.
- (4) Finally, selecting KPIs that reflected the full cycle of provision was seen as important in measuring quality at every stage of the student experience. Figure 4 illustrates an incomplete model of Porters value chain (Porter, 2008) applied to seven Universities and that also incorporates the five stage impact model discussed earlier (Kellogg, 2004). This value chain model invites consideration of KPIs from across the full spectrum of activities including the areas of research and contribution. It can also be noted from this model that iQR impact has a very different life cycle to for example Research. iQR impacts are relatively short term whereas research impacts may take a number of decades.

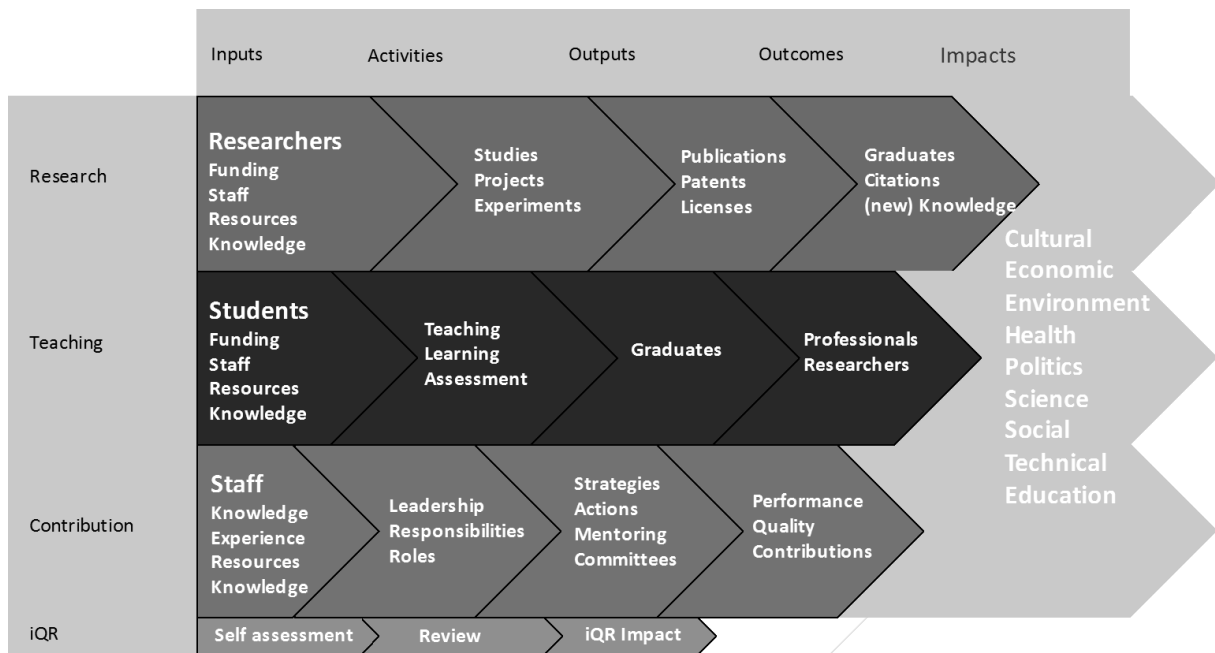


Figure 4: Value Chain and Impact

KPIs for iQR

The final stage of the study was to understand and record what General KPIs were being used or are emerging at the different Universities. Table 3 presents the KPIs for all seven Universities referred to Case A, B, C, etc. and illustrates that all are utilising KPI's across three important domains for the quality of learning, teaching and assessment (TLA). There are a number of KPI's at point of entry for profiling learners based on prior attainment, socio-economic and demographic attributes. All Universities utilise data for learning experience based on standardised evaluation tools (Irish Survey of Student Engagement). The ratio of staff to students appears for many universities reflecting both national funding agency requirements and also one of the criteria used in international rankings. Output KPIs presented focus on level of employability and student attainment levels. Emerging KPI's include gender and equality ratios and process improvement measures such as return of external examiners reports and timescales for assessment return. All of these KPI's provide a basis for on-going monitoring and review, and also provide indicators of the degree of change either positive or negative in terms of the broad quality of learning, teaching and assessment.

Conclusions

The purpose of this study was to generate greater understanding of impact as it relates to the iQR process and to bring forward practices and emerging ideas for the selection of KPIs that can inform the iQR process and later attempt to provide evidence of impact. The study finds that positive causality between iQR and quantitative general impact is almost impossible to prove on its own. However, when implemented as part of a tripartite approach to change management together with strategic planning and performance measurement, it is equally difficult not to attribute iQR with long term measurable impact.

Selecting KPIs is aided by a thorough understanding of stakeholder needs, and the life cycle or value chain of the core processes involved. Both qualitative and quantitative impacts can be articulated for both the QA process and the general provision of learning. The selection of KPIs at seven Irish Universities illustrated a variety of perspectives informed not only by ESG and QA guidelines but also by strategic plans and performance compacts with the funding agent.

The illustrative KPIs included measures for learning, teaching and assessment but also for the iQR process itself. It's clear that as discussions continue, general KPIs will adapt to external and internal stakeholder needs. Impact or more specifically quantitative KPIs are growing in importance for promoting more responsible QA by providing evidence of improvements to student experiences and learning outcomes.

Table 3: Current or Emerging KPIs at seven Irish Universities

General KPIs	Case1	Case2	Case3	Case4	Case5	Case6
Entering Student Profile- Prior Attainment in Mathematics				*		
Entering Student Profile- Geographical Catchment		*	*			
Entering Student Profile- Quality Profile	*	*	*	*	*	*
Student Profile- Access Students	*	*	*	*		*
Student Profile- Transfer Students	*	*				*
Student Profile- Socio-economic Disadvantaged Students	*	*	*	*	*	*
Student Profile- International Students	*	*	*	*	*	*
Student Profile- Part-time and Flexible Student Numbers	*	*	*	*		
Graduate Profile- Student Employment (First Destination Survey)	*	*	*	*	*	*
Graduate Profile- Awards (e.g. Honours/Medals)		*	*	*		
Staff/Student Profile- Gender and Equality Ratio		*	*	*	*	
Academic Staff Profile- Faculty with PhD		*	*			
Teaching and Learning- Staff-student Ratio	*	*	*		*	*
Teaching and Learning- Progression Rate	*	*		*	*	*
Teaching and Learning- Retention Rate	*	*	*	*	*	*
Teaching and Learning- Programmes with Work-based Learning	*		*	*	*	
Teaching and Learning- UG Module Evaluation Rate		*				
Teaching and Learning- PG Taught Programme Evaluation Rate		*				
Teaching and Learning- Return of Course Work Cycle Time		*				
Teaching and Learning- External Examiner Report Return Rate		*	*	*		
Student Feedback- Satisfaction Score (National Survey)	*	*	*	*	*	*
Student Feedback- Survey Participation Rate (National Survey)	*	*				
Reputation- University and/or Subject Ranking	*	*	*	*		

References

Barnett, R. (1992). The idea of quality: voicing the educational. *Higher Education Quarterly* , 46 (1), 3-19.

CUC. (2006, November 1). *CUC Report on the Monitoring of Institutional Performance and the Use of Key Performance Indicators*. Retrieved May 1, 2017 from Committee of University Chairmen: http://www.universitychairs.ac.uk/wp-content/uploads/2016/07/CUC-report-on-use-of-KPIs_2006.pdf

ESG. (2015). *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*. European Association for Quality Assurance in Higher Education. Brussels: EURASHE.

Green, D. (1994). What is quality in higher education? Concepts, policies and practices. In D. Green, *What is quality in higher education*. Bristol, U.K.: Taylor & Frances.

Harvey, L. (2006). Impact of Quality Assurance: Overview of discussion between representatives of external quality assurance agencies. *Quality in Higher Education* , 12 (3), 287-290.



Harvey, L., & Green, D. (1993). Defining Quality. *Assessment & Evaluation in Higher Education* , 18 (1), 9-34.

Higher Education Authority. (2016). *Higher Education System Performance Framework 2014-2016*. Retrieved July 1, 2017 from <https://www.education.ie/en/The-Education-System/Higher-Education/HEA-Higher-Education-System-performance-Framework-2014-2016.pdf>

Kellogg, W. (2004). *Logic Model Development Guide*. Michigan: WK Kellogg Foundation.

Liu, S., Tan, M., & Meng, Z. (2015). Impact of Quality Assurance on Higher Education Institutions: A Literature Review. *Higher Education Evaluation and Development* , 9 (2), 17-34.

Pollard, E., Williams, J., Williams, M., Bertram, C., Buzzéo, J., Drever, E., et al. (2013, November 1). *How should we measure higher education? A fundamental review of the Performance Indicators - Part One: The synthesis report*. (Institute for Employment Studies) Retrieved April 27, 2017 from <http://www.employment-studies.co.uk/>: <http://www.hefce.ac.uk/pubs/rereports/year/2013/ukpireview/>

Porter, M. (2008). *Competitive advantage: Creating and sustaining superior performance*. . New York: Simon and Schuster.

QQI. (2016). *Quality in an Era of Diminishing Resources - Irish Higher Education 2008-15*. Quality and Qualifications Ireland. Dublin: QQI.

Ross, D. (1977). Structured analysis (SA): A language for communicating ideas. *IEEE Transactions on Software Engineering* , 1, 16-34.

Schindler, L., Puls-Elvidge, S., Welzant, H., & Crawford, L. (2015). Definitions of Quality in Higher Education: A Synthesis of the Literature. *Higher Learning Research Communications* , 5 (3), 3-13.

Stensaker, B. (2003). Trance, Transparency and Transformation: the impact of external quality monitoring on higher education. *Quality in Higher Education* , 9 (2), 151-159.

Tam, M. (2001). Measuring Quality and Performance in Higher Education. *Quality in Higher Education* , 7 (1), 47-54.

VanVught, F. A., & Westerheijden, D. F. (1994). Towards a general model of quality assessment in higher education. *Higher Education* , 28, 355-371.



Expected learning outcomes for participants:

- Distinguish between Quality, Quality Assurance and Impact
- Discover ways of measuring the impact of Quality Assurance
- Benchmark against practices in the Irish university sector