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Contributions for innovative institutional research quality assessment practices and processes

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Abstract

The urge for the achievement of excellence patterns in research has led higher education institutions to become more and more aware of their role in the process by putting their strategic emphasis on the development of assessment tools towards the monitoring and evaluation of research quality. We intend to review the lessons learned from current research assessment experiences and collect good practices and recommendations using semi-directed interviews with evaluation panel members, institutions' representatives and researchers involved in the last UK's Research Assessment Exercise. Our major aim is to present and discuss a set of guidelines as a first input for the design of an evaluation framework to evaluate and monitor the quality of research at an institutional level. We seek to add significantly to our understanding of what can be actually done using strategic planning to look forward in the areas of research engagement/resources and institutional culture, productivity/ performance and innovation, quality/merit and impact and sustainability/ support. Overall, the challenges of promoting research are discussed and strategies for its enhancement are included.

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1. Introduction

There has been an increased demand for a wider understanding of the higher institutions' role on the management of change, diversification, accountability and accomplishment of the so-called *third mission*: to be excellent and relevant (in teaching and research), entrepreneurial and caring (in the approach to students and communities), competitive and collegial (in dealing with other knowledge providers) and local and international in focus (in teaching and research)(ESF 2010). Such requirements call for a new governance and accountability approach, highly professional management and a rethinking of the way in which the university creates and assesses its value mainly in what concerns research competiveness and innovation (Brennan&Teichler, 2008).The creation, adaptation and integration of national/European systems has raised a wide discussion and a demand for studies about the use of evaluative and regulatory tools not only for accountability purposes but also to monitor or propose strategies to promote the quality of research starting at an institutional level. This paper presents the first steps of a research that

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has the ultimate goal of designing an evaluation framework to be used as the starting step to monitor and regulate the quality of research in research intensive Portuguese universities with a special emphasis in the educational field.

The most innovative aspect of this study lies on the design of an evaluation framework that will support the monitoring and assessment processes to compose a comprehensive framework for understanding and conceptualizing research quality assessment from different perspectives and facilitate the development of effective management strategies at all levels (from the departmental/ institutional to national/international levels). The assessment criteria and quality indicators are discussed regarding their validity and flexibility so that they can be used either in Portugal or in other European HE institutions. The outputs will also allow the development of future comparative and cross-national studies about good practices and quality enhancement recommendations and stimulate the debate about the indicators, criteria and tools associated with research quality assessment. In this paper we look at what institutions can do to promote the quality of research by focusing on the combination of European general research assessment framework guidelines and recommendations with the good practices collected through the development of an empirical field work study with the aim of building a reference case study (UK RAE experience).We start with the conceptual premises of research assessment and the lessons from the European practice, followed by the description of the empirical study developed in the UK about the *Research Assessment Exercise* (RAE) experience aiming to answer the guiding question and contribute to the development of effective evaluation and monitoring tools.

Setting the scene

At an European level, based on the principles and characteristics of the main international research assessment/ranking systems, the Expert Group on Assessment of University-Based Research developed a methodology – *the Multi-dimensional Research Assessment Matrix* - to enable institutional benchmarking, contribute for the improvement of research quality and for the development of a comparative assessment of European institutions that links specified users with their defined purposes and objectives to data, quantitative and qualitative indicators, and assessment methods (European Commission 2010).

The matrix encloses a set of guidelines about Research Engagement, Resources and Institutional Culture, Performance, Productivity and Innovation, Quality, Merit and Impact and Sustainability and Support and highlights some 'good practices' that include the use of consultation with researchers and institutions, the collection of data through digital repositories, the assessment of units, the use of peer review panels and indicators, the maintenance of a clear sense of purpose, self-evaluation and a responsible self-awareness of the social and economic impacts and benefits. It can be used by universities, national agencies, government, and other stakeholders for assessing research productivity, quality and scholarly impact, innovation and social benefit, sustainability and scale and research infrastructure with the purpose of allocating resources, driving research mission differentiation, increasing regional/ community engagement, improving research performance, assessing value-for-money or cost- benefit of research, encouraging international co-operation and increasing multi-disciplinary research (European Commission 2010). One of the international reference case studies under analysis by the Expert group was the UK's *Research AssessmentExercise* (RAE) (*Research Excellence Framework* (REF) to be held in 2014), a major influence for the main international processes for research-quality assessment. The system has been restructured over the last three decades and tends to be open and most of the aspects of the methodology are in the public domain and under constant consultation and discussion. It is an ex-post informed peer review system and its main purpose is to produce quality profiles based on: clarity, consistency, continuity: credibility, efficiency, neutrality, parity and transparency (HEFCE, SFC,HEFCW & DEL, 2008). In fact, according to the European Commission's Expert Group on Assessment of University-Based Research the UK's system has been able to "find a way of assessing the quality of research and then linking that quality judgment to funding in a way that commands the confidence of the higher education sector" (EC 2010, p. 126). Otley (2010, p.12) critically reviewed the development of research assessment in UK universities over the last two decades and drew some lessons from this experience by considering that the system can be seen as "a largely successful attempt to affect the behaviour of academics and to hold them

accountable for the results obtained from the public funding" and that (…) "on the other hand, the result has arguably been a reasonable compromise that has achieved some of the desired results without too many adverse side effects". This general consensus about the reliability of the assessment system is particularly evident in Otley's discussion (2010, p.9) when he argues that in the RAE context researchers are willing "to produce research of the highest quality rather than becoming paper production machines", and on Roberts Report's conclusions about the UK RAE that states that "the only system which will enjoy both the confidence and consent of the academic community is one based ultimately on expert review" (Roberts 2003, p.7).

2. Methodology

The present study combines the guidelines presented in the *Multidimensional Research Assessment Matrix* (general conceptual framework) with good practices and recommendations from the RAE experience (reference case study) aiming to find some answers to the guiding question about what institutions can do to evaluate, monitor and promote the quality of research and face assessment.

The sources of the empirical data for the case study were semi-directed interviews conducted with two members from the UK's last RAE panels (2008) (Cases A and B), two institutional representatives (a world-leading research-intensive and research-led teaching approach institution (education and social sciences) and a teaching-led /research informed institution) (Cases C and D) and two senior researchers (experts in the area of educational research)(Cases E and F). The respondents were invited to present their perceptions, good practices and recommendations based on the roles played in the assessment experience, contributing for the design of a combined and intertwined perspective.

3. Data analysis and discussion

In order to establish some reference points for a more contextualized discussion, the data were organized according to the guidelines of the Multidimensional Research Assessment Matrix (EC 2010) (*Research Engagement, Resources and Institutional Culture, Performance, Productivity and Innovation, Quality, Merit and Impact and Sustainability and Support*) and the quotations that best represented a category or opinion as expressed by the interviewees were used to highlight our findings.

A first and transversal concern drawn from the RAE experience has to do with *Research Engagement, Resources and Institutional Culture*. This is particularly stressed by the RAE panel members by putting a strong emphasis on their experiences and perceptions as assessors and regarding RAE as consistent and reliable assessment system that aims to assess "the highest quality of research" (case B). In this scope, RAE is considered to have the support of most of its academic community, for being based on peer review and on the evaluation of outputs (cases A and B).

As suggested by the European Commission (2010), a good practice that can be introduced at an institutional level is, therefore, the use of peer review as a tool for stimulating quality awareness, professional development and challenging the frontiers and barriers between peers promoting research engagement and a shared commitment between researchers. According to the wide experience on peer-review of the RAE panel members, should be introduced within the institutional culture and teams "should be made clear, transparent and following rigorous standards of equality/ moderation and expertise recognition always providing an accurate idea about the criteria and their implications" (case B) in order to promote the "confidence in the system" (case A). In fact, a good practice to embrace would be the encouragement of the contribution of all the intervenient to the evaluation of the system itself (case A). Furthermore, there is a common stated concern about the lack of consistency and the need "to promote moderation in the procedures, especially when there are different people doing different activities" (case A). Shaping these recommendations into an institutional practice, participants should be assured that the procedures and criteria are submitted for discussion, review, consultation and negotiation and engagement and ethical responsibility should be enhanced by all the members involved regardless of their role in the whole process. Additionally, the participation of researchers in training workshops on peer review (including information and discussion about its notion, processes, strategies, resources, current issues) (RIN 2010), integrated in a research mentoring plan and as a

part of the researchers' activities can be a remarkable tool for professional development and consolidation of a strong research culture based on cooperation and creation of partnerships between peers.

In this same sense, the institutional emphasis should be based on the creation/development of a strong "collegial and inclusive culture" and on the "identification of the key areas of strength" as argued by the top-rated research institution representative (case D) and recommended by EC experts when stating that "institutions should become more specialized and concentrate on working to their specific strengths" (EC 2010, Foreword). This implies the design of a strategic research plan to allocate resources, manage research and teaching incomes, end-user funding, support decisions about benefit and cooperation agreements with the local/regional and public/private organizations, determine investment priorities, staffing policies, collaborations and partnerships and provide evidence of the significance of research and of the esteem attached to individual researchers and research groups.

The creation of systems based on a managerial view of research has developed a vigorous internal concern about how to address the issues of *Performance, Productivity and Innovation*. On the other hand, institutions face a generalized lack of awareness, even at a departmental level, about what is actually produced inside their walls and how research teams exercise their potential aiming to promote productivity. As suggested by Day (2004) the creation of institutional databases/repositories with research output records, *bibliometric* and citation data as well as information about patents, licenses, spin-offs…) may be the basis for generating data on research production and, at the same time, make the research products accessible and available for all purposes, including assessment by the peers. The creation of dedicated structures and the move towards more detailed reporting may also be the basis for initiatives such as the creation of online research portfolios to facilitate the collection of information about individual/ team research publication habits and trends and the design of research profiles. A careful attention must also be given to the multiplicity of new kinds of outputs associated with the arising different contexts, publics and information and communication tools involved in the creation of knowledge. In this scope, another recommendation refers to research purpose and to the types of publications to be supported with a clear reference to a need for the "establishment of a wider conception of research and forms of scholarly outputs (such as textbooks, e-learning)" (Case F).

Other constant demand is the need for making research international and based on collaboration and partnerships. In this domain, the RAE experience, has suggested the maintenance of an open internal discussion about what constitutes international research and the scientific communication language to be used (Case B). These topics match some of the concerns associated with the use of quality assessment criteria that, instead of being based on the very quality of research, are strongly depend on publication in English and on a preference for paper included in reference citation databases. The issue of the internationalization of research, on the other hand, must be regarded as a basic principle of all scientific research and a target for institutions with the creation of research collaboration networks, the development of research projects by international teams on common research interests and the creation of joint and international advanced training/post graduation courses (Rivzi 2009). Moreover, these collaborations and partnerships may also contribute for an enhancement of multidisciplinary research, an increase in the numbers of internationally co-authored publications and the creation of new research fields bringing opportunities for a wider approach to research subjects and a (re)definition of the concept of research development and knowledge production (Evidence 2009).

Concerning *Quality, Merit and Impact* and turning the focus to the practice of the panel members we get a reference about the concept of impact and how it should only be considered as "a second moment after assessing quality" (case A). The main objective should be to achieve "the highest quality of research" (case A) and then, impact or "significance" may be assessed. This economic and social "impact orientation" is particularly sensitive for educational research when there is a constant pressure towards having a direct social and economic relevance and accountability. In this scope, and referring to the case of Education, a respondent embracing the role of assessor (case B) emphasizes how "quality in Education is about changing people's questions rather than giving them narrow answers" and that in this area it very often takes 20 years to have an impact and mostly an indirect one". This concern is shared by Bridges (2009) and Besley (2009) on the educational research setting by referring the constant tension between the criteria of quality and the diverse and sometimes contradictory requirements of educational research. As argued above, the definition of the research identity of the institution is essential when it comes to

define impact or significance objectives but also to determine its approach to close related issues associated with merit, esteem and reward/recognition.

At the level of *Sustainability and Support*, the representative of a leading research-intensive top university (case D) recommends the encouragement of new researchers to become involved in the production of high quality research. These issues of research capacity raise questions about staff qualification, retaining and sustainability and about the steps needed to improve or consolidate this capacity. Following this need for support and investment, the top-rated university representative (case C). pointed out the need to provide full support for the development of research skills. More specifically, the respondent stressed the generalized lack of instruction at level of writing skills for publication. This recommendation is particularly relevant in institutions where there are many new and emerging researchers not very much acquainted with the assessment system demands and needs associated with a broad understanding of the new trends and patterns of scientific writing, referencing and authorship, grant writing, research commercialization, intellectual property, project management, among many others (Huet et al 2009, Cabral & Huet 2012). This provision of comprehensive support to researchers across the research lifecycle must be seen as an investment and as an essential part of the strategical research plan developed in partnership with the academic divisions, departments, research facilitators, services and administration.

Conclusions

This paper aimed to bring some contributions for the development of innovative institutional research quality assessment practices and processes. Despite the underlying differences between national assessment systems, institutional and disciplinary research cultures and research experiences and motivations, this study tried to draw attention to a range of common issues about what can be done mainly at a micro/meso level at institutions. The good practices and recommendations although not generalizable, hoped mainly to bring some insights about intervention and stimulate further investigation mainly in the area of researchers' experience inside institutions.

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