Performance Appraisal of Higher Education Teachers' in Information Systems and Technology: Models, Practices and Effects

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Abstract. Despite the increasing awareness of the relevance of technologies to various life domains and environments, its application to research on Information Systems and Technology Teachers' Evaluation in Higher Education is still very limited. The IT sector has special characteristics, such as the high employability rates that are very relevant to integrate in the discussion about the teachers' performance appraisal. Universities need to reflect about the retention of teachers with good and competitive performance appraisal systems. Also, performance appraisal models had been suffering a change in its theoretical and empirical relevance towards a process-based approach. This short paper presents a work in progress that intends to analyse the state of the art on teacher evaluation in Higher Education, specifically on Information Systems and Technology Teachers', review national and international teacher evaluation frameworks in Higher Education, identify the main principles and assumptions underlying teacher evaluation models in Higher Education and characterize the existing models and practices of teacher evaluation, at national and international level, their main results and conclusions.

Keywords: Teacher evaluation · Quality standards
European Higher Education Area (EHEA)

1 Introduction

Teacher Evaluation in higher education is a complex and controversial issue, which has been subject to great reflection and attention. It is considered an important strategy to improve the quality of higher education institutions. Therefore, it should be analysed and understood, in the European context, according to the recent Standards and Guidelines for Quality Assurance in the European Higher Education Area, defined by the European Association for Quality Assurance in Higher Education [1], which provide a common European framework for the analysis of quality at national and institutional

levels. A key goal of the European Standard Guidelines is to contribute to the common understanding of quality assurance for learning and teaching across borders and among all stakeholders. The ESG have been used by institutions and quality assurance agencies as a reference document for internal and external quality assurance systems in higher education. Teachers and academics play an important role in the development of national and institutional quality assurance systems across the European Higher Education Area (EHEA). These quality standards are an opportunity for Higher Education institutions to reflect upon their internal mechanisms for quality assurance, where teacher evaluation appears not only as a management tool, but as an essential resource to contribute to teachers' professional development, promoting better individual and collective perform-ance of teachers within the university.

This study will aim to contribute to the development of effective evaluation processes that cover both individual and institutional objectives and lead to the quality of Higher Education in Portugal.

The Information Systems and Technology Teachers' constitute a group of teachers considering the high employability rates of the sector. Higher Education Institutions (Heis) need to preserve, retain and attract the best professionals to fulfil their goals in this specific development area. It is crucial to develop studies where we can define models and practices that can be used as best practices, at this particular sector, aiming at retaining talents.

1.1 Teacher Evaluation: Perspectives and Objectives

Teacher Evaluation necessarily involves considering a number of issues that fit and determine a particular definition of what it means to be a teacher and how teachers perceive the roles inherent to the teaching profession.

Assuming that evaluation involves gathering information to judge the merit and/or value of the teacher [2] this means that different definitions of teaching, require different ways of gathering information and making value judgments. This is, the concept of being a teacher necessarily determines the type of data collection and the use of that informa-tion to judge the merit and/or value and, therefore, conditions the evaluation process itself [3]. The diversity of perspectives on what being a teacher is and what it means to teach has serious implications for teacher evaluation and the lack of consensus on this matter is one of the main constraints for the development of an effective teacher evalu-ation system. According to Hadji [4], the "difficulty in evaluating teachers derives more from the uncertainty that outweighs the very essence of teaching and the lack of consensus in this regard, rather than technical problems, always secondary […] The purpose of teacher evaluation is difficult to establish as it is difficult to define" (p. 32).

Data collection is considered one of the most arguable and least understood compo-nents of the teacher evaluation process. The literature reveals that teachers' work is best described and evaluated when there are different types of evidence collected from multiple sources and multiple methods. The most common practice in any evaluation system is the use of multiple kinds of evidence or data sources (self-evaluations, peer observations, student ratings). The use of a multiplicity of sources is related to the fact that the majority of tasks are themselves multifaceted and that the use of multiple sources

increases the validity and reliability of evaluation and reduces the subjectivity, providing more opportunities for evaluating both the quality and quantity of activities. According to Braskamp and Ory [5] an effective evaluation should cover both individual and institutional objectives, reflect the complexity of teachers' work, promote the identity and uniqueness of each teacher and their professional development, communicate the objectives and institutional expectations in a clear way and, finally, should promote collegiality among faculty.

Teacher evaluation should be considered as an important strategy to develop quality assurance in Higher Education and teachers' professional development and not seen as an attack to teachers' professionalism [6]. Also of great interest in this discussion is the link between research and teaching in teacher evaluation models [7, 8]. Is it possible to link formative purposes (targeted for professional development) and summative (oriented to accountability) in the same framework? The idea of an evaluation that promotes learning and professional development is still underdeveloped in many higher education institutions and evaluation is still not viewed as a way of thinking differently and adjusting work while it is ongoing, instead of doing this after at the end.

2   Methodology

This study is part of a broader ongoing research project which aims to analyze the state of the art on teacher evaluation in Higher Education, specifically on Information Systems and Technology Teachers', review national and international teacher evaluation frameworks in Higher Education, identify the main principles and assumptions underlying teacher evaluation models in Higher Education and characterize the existing models and practices of teacher evaluation, at national and international level, their main results and conclusions. It seeks to identify the key dimensions considered in national policy documents and frameworks developed amongst higher education institutions in Portugal. Based on a review of existing literature on performance appraisal in higher education and on several national policy documents, this study seeks to explore national case studies, looking at different existing frameworks and guidelines used for the appraisal of faculty, identifying the overall dimensions, indicators and weights that have been set out to evaluate faculty performance. To achieve this goal, the analysis of stakeholders' perspectives regarding the design, development and implementation of performance appraisal frameworks in Portuguese higher education institutions will be of crucial importance.

The study seeks to find answers to this question and other research questions, such as:

– What are the current teacher evaluation policies in Higher Education?
– What are the main principals and assumptions underlying the legal documents?
– What are the main goals and purposes defined for teacher evaluation?
– What are the key dimensions included in the (existing) teacher evaluation frameworks?
– What tools and sources of information are used?
– What are academic staff perceptions regarding teacher evaluation policies and practices?

– How are the research and teaching dimensions considered in the process?

The lack of scientific studies and existing literature on teacher evaluation in the context of Higher Education in Portugal are a significant opportunity for the development of this study, its objectives and outcomes. In general, this study aims to develop three main objectives and their specific objectives:

- Analyze the state of the art on teacher evaluation in Higher Education, specifically on Information Systems and Technology Teachers'.
  – Review national and international teacher evaluation frameworks in Higher Education, specifically on Information Systems and Technology Teachers'.
  – Identify the main principles and assumptions underlying teacher evaluation models in Higher Education.
  – Characterize the existing models and practices of teacher evaluation, at national and international level, their main results and conclusions.
- Identify teachers and academic leaders' perspectives regarding the implementation of Information Systems and Technology Teachers evaluation frameworks in higher education institutions
  – Compare the results and effects of teacher evaluation in different Portuguese Higher Education institutions
  – Identify the main opportunities and challenges that the teacher evaluation process raises for Higher Education institutions

Discuss the roles of the university professor (research, teaching, management and extension to the community) considering the current policies and practices of teacher evaluation in Higher Education institutions in Portugal.

- To support national higher education institutions and their stakeholders to address the quality standards defined by the European Higher Education Area (EHEA).
  – Implement an action-research plan in two public higher education institutions, aimed at involving teachers and stakeholders in a collaborative process of finding solutions to their own problems, leading to a change process;
  – Develop open access resources based on best practices of successful national case studies of teacher evaluation;
  – Define a set of guidelines, recommendations and suggestions for improving quality in higher education, published in a practical guide (handbook);
  – Draw inputs to support the link between research and teaching in teacher evaluation frameworks used in higher education institutions;
  – Publish an ebook with Best Practices of Teacher Evaluation in Higher Education in Portugal

To carry out the study, international studies with similar goals to this study will be carefully analyzed, such as the ones following [9, 10] in Australia, [11] in North America and in the United Kingdom [12]. The methodology used in these international studies comprised a survey of institutions focusing on existing policies and practices, a literature review, consultation with academic staff (via survey and case studies) on tentative proposals made for recognizing and rewarding good teaching across the university

system, a comparison of the findings from the case studies, staff and institutional surveys, amongst other methods.

The study will employ both a qualitative and a quantitative methodology. The research will be developed in two different phases. The first phase will include an update of the review of the state of the art and the development of a critical analysis of the existing performance appraisal frameworks implemented amongst Portuguese higher education institutions. This includes the review and analysis of articles in recognized international peer-reviewed journals, as well as research reports and publications from assessment agencies such as the national Agency for Assessment and Accreditation of Higher Education (A3ES) and the European Association for Quality Assurance in Higher Education (ENQA).

For data collection, data will be selected and compared from different public higher education institutions in Portugal. In the first phase, data collection will be based on the application of an online survey addressed to all Information Systems and Technology Teachers from selected higher education institutions. The questionnaire will be designed and validated before application, with the support of an international consultant from ENQA and/or A3Es. The purpose is to discover how far Information Systems and Technology Teachers agree with the principles of the performance appraisal frameworks being used and their perceptions of how well the various indicators have been implemented in their organic unit and/or higher education institution. Also in this phase, individual semi-structured interviews to stakeholders and academic leaders will be carried out, inquiring about positive/negative outcomes of the current teacher evaluation frameworks used in the institutions, the problems and constraints, the unforeseen effects, the implications for teachers' career progression and professional development, amongst other important issues that might emerge from the literature review update.

A set of guidelines, recommendations and suggestions for improving teacher evaluation practices in higher education will be developed at the end of the study, based on findings from the implementation of an action research plan. The publication of an ebook with Best Practices of Information Systems and Technology Teachers Evaluation in Higher Education in Portugal and the development of open access resources included in a Handbook for Information Systems and Technology Teachers Evaluation are some one of the expected outcomes. Finally, the study intends to develop a culture of continuous improvement of Higher Education, through the systematic discussion and reflection, with academic leaders and teachers, about quality in higher education.

3   Final Remarks

Despite the increasing awareness of the relevance of technologies to various life domains and environments, its application to research on Information Systems and Technology Teachers' Evaluation in Higher Education is still very limited. The IT sector has special characteristics, such as the high employability rates that are very relevant to integrate in the discussion about the teachers' performance appraisal. Universities need to reflect about the retention of teachers with good and competitive performance appraisal systems. Also, performance appraisal models had been suffering a change in its

theoretical and empirical relevance towards a process-based approach. It is relevant to continue developing more efficient human resource management systems that integrate adequate performance appraisal models considering the high competitiveness of the sector and the need to respond to the personal and professional expectations of teachers, towards their professional development and subsequently higher competitiveness in higher education institutions.

References

1. ENQA, ESU, EUA & EURASHE.: Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), Brussels, Belgium (2015)
2. Flores, M.A.: Da Avaliação de Professores: Reflexões sobre o caso Português. Revista Iberoamericana de Evaluacion Educativa **2**(1), 240–256 (2009)
3. Flores, M.A.: A Avaliação de Professores numa Perspectiva Internacional: sentidos e implicações. Areal Editores, Porto (2010)
4. Flores, M.A., Veiga Simão, A.M.: Competências desenvolvidas no contexto do Ensino Superior: a perspectiva dos diplomados. In Actas das V Jornadas de Redes de Investigación en Docencia Universitaria, Universidade de Alicante, Espanha (2007)
5. Braskamp, L.A., Ory, J.C.: Assessing faculty work: Enhancing individual and institutional performance. Jossey-Bass Publishers, San Francisco (1994)
6. Harley, S.: The impact of research selectivity on academic work and identity in UK universities. Stud. High. Educ. **27**(2), 187–205 (2002)
7. Sikes, P.: Working in a 'new' university in the shadow of the Research Assessment Exercise. Stud. High. Educ. **31**(5), 555–568 (2006)
8. Young, P.: Out of balance: lecturers' perceptions of differential status and rewards in relation to teaching and research. Teach. High. Educ. **11**(2), 191–202 (2006)
9. Ramsden, P., Margetson, D., Martin, E., Clarke, E.: Recognising and Rewarding Good Teaching in Australia Higher Education. Australian Government Publishing Service, Canberra (1995)
10. Ramsden, P., Martin, E.: Recognition of good university teaching: policies from an Australian study. Stud. High. Educ. **21**(3), 299–315 (1996)
11. Fairweather, J.: Faculty Work and Academic Trust: Restoring the Value of Teaching and Public Service in American Academic Life. Allyn and Bacon, Boston (1996)
12. Gibbs, G., Habeshaw, T.: Recognising and Rewarding Excellent Teaching. Open University, Milton Keynes (2003)