Operationalisation of Higher Education Teaching Performance (HETP) recognising and rewarding teaching as a part of science is enabled by Open Scholarship

Weimer, V.V.

1. Introduction

The Recognition and Reward System (RRS) in the university context describes structures and processes according to which academics achieve visibility, are valued and/or promoted for certain efforts, activities and results. These processes vary in detail according to the national and disciplinary context. They can also differ depending on the university. Consequently, it is not possible to speak of a single system, but rather of many different systems, depending on the context and environment. Nevertheless, there are overarching structures. These include the high reputation of research publications (like articles in prestigious journals, books or conference proceedings) and research impact (i.e. the visibility of the publication in the research community in the form of citations). In addition, the acquisition of external research funding is welcomed and highly valued. In some areas, innovations and patents are also among the most appropriate scientific results. National or international collaborations and activities in academic committees and involvement in academic self-administration are also valued in science (Hornbostel 2010; Hicks et al. 2015).

It is striking that until recently, the RRS was primarily based on research. Research publications, research impact, research funding acquisition, but also patents and research collaborations are based on research activities and tasks. Higher education teaching, on the other hand, is viewed in a less comprehensive and diverse way, especially when it comes to rewards or decisions based on quantitative indicators. This circumstance is surprising as universities are understood as a place of unity of research and teaching. It is also problematic when higher education policy decisions are made, for example when job appointments, promotions or the allocation of academic funding are based exclusively on research activities.

In my thesis, I focus on universities and academics who are committed to both research and teaching. I argue for greater recognition and reward of Higher Education Teaching Performance (HETP) and highlight the often undervalued contribution that academics make to teaching. HETP encompasses a wide range of activities directed at educating, mentoring, and supporting students throughout their academic journey. These activities go beyond the basic delivery of lectures; they include comprehensive course preparation, designing and updating syllabi, creating innovative and accessible teaching materials, and employing effective assessment methods to foster student learning and engagement.

I situate my work in the broad discourse surrounding the academic RRS, which has been the subject of heated debate for some time. For example, there are repeated calls for a more cautious and prudent use of quantitative indicators, such as in the Leiden Manifesto (Hicks et al. 2015), the *San Francisco Declaration on Research Assessment* (DORA) (2012) or the report *The Metric Tide* (Wilsdon et al. 2015). The current discourse also addresses the diversity of academic activities and calls for this to be reflected in the RRS. For example, the *German Research Foundation* (DFG) has demanded that types of publication considered should not be viewed so narrowly but that output should be considered alongside traditional articles and books (DFG 2022). The Dutch public knowledge institutions and funders (VSNU, NFU, KNAW, NWO & ZonMw) have also issued a statement in the position paper *Room for everyone's talent* (2019), in which they explain that they are striving for the Dutch RRS to achieve a better balance between education, research, impact and leadership. The University of Leiden's strategy paper *Academia in Motion* explains how the diversification of academic careers at the university will be implemented in concrete terms (University of Leiden 2024). One international endeavour worth mentioning is the declaration of the *Coalition for Advancing Research Assessment* (CoARA), which aims to reform assessment practices, value the

diversity of academic contributions more strongly and strengthen qualitative assessments (CoARA 2022). The present work can be located within this discourse. By addressing university teaching as an integral part of the RRS, a broader consideration of academic activities is promoted, and the discourse on what counts is expanded.

One way of situating teaching activities in the RSS is by acknowledging and measuring open scholarship practices. Openness in science means the promotion and implementation of practices that allow science to become more transparent, meaning that it is accessible to all, that the processes and results are comprehensible and can be reused. It includes free access to scientific publications (open access), but also to research data (open and FAIR data), methodological procedures (open methodology), published research software (open research software), freely accessible infrastructures such as repositories (open infrastructure) and freely accessible teaching/learning material (open educational resources) (Leibniz Association 2022). Regarding academic recognition and reward, many position papers have discussed and called for the inclusion of openness indicators to create incentive structures for these practices and reward corresponding activities. The following two European Commission strategy papers can be referred to in this context: *Next-generation metrics: Responsible metrics and evaluation for open science* (European Commission 2017(a) and *Evaluation of research careers fully acknowledging open science practices* (European Commission 2017(b)). The GraspOS (Open Research Assessment Dataspace) (OSAF 2023) and OPUS project (Open and Universal Science Project) (O´Neill (date unknown)), which address the aspect of openness in academic recognition and reward, should also be mentioned to emphasize how strongly openness indicators are currently being addressed. Open scholarship practices aim at the inclusion of university teaching performance in academic recognition and reward processes. The emergence and dissemination of Open Educational Resources (OER) opens opportunities for data collection that would not be possible without free access to teaching material. Data-supported inclusion of teaching in the academic RRS thus becomes conceivable for the first time. OER ”are learning, teaching and research materials in any format and medium that reside in the public domain or are under copyright that have been released under an open license, that permit no-cost access, re-use, re-purpose, adaptation and redistribution by others.” (UNESCO 2024). OER as a movement offers an opportunity for the inclusion of HETP in the RRS, as openness enables access to data. This offers the prospect of a more differentiated view of academic activities and results.

I aim to operationalise HETP in such a way that it can be made accessible for recognition and reward in the university context. Operationalisation in this case means the “translation of a rather abstract variable or a fine theoretical construct into a concrete measurable characteristic” (Bortz 2005, 794; free translation by the author). Translation/ operationalisation into concrete characteristics is essential if higher education teaching is to be considered in the RRS of academic performance. While questions are addressed in each of the sub-chapters, the entire thesis is devoted to the following overarching question:

> *How can Higher Education Teaching Performance (HETP) be operationalised for the academic Recognition and Reward System (RRS)?*

The operationalisation of academic performance is common using both qualitative and quantitative approaches. The qualitative operationalisation of HETP is the subject of the following chapter and is similar to the peer review process known from research. This is an academic evaluation process in which experts in a particular field review and assess research papers or, as in the context of my thesis, teaching material. The process usually takes place before the work is published or used for certain purposes. I examine the question of the quality of HETP from three different educational

science perspectives and then discuss the resulting implications regarding qualitative operationalisation (chapter 2) (Weimer, Alt & Hiebl 2024).

I then consider quantitative (i.e. scientometric) approaches to operationalising HETP for the academic RRS. Scientometrics is the quantitative analysis and measurement of academic output. In the field of research, for example, the quantification of articles, books or research data is common. In my thesis, I discuss the transfer of these approaches to the field of university teaching and the quantification of teaching/learning materials as a method to make teaching performance accessible for the RRS. I do not consider HETP in its totality in chapters 3 and 4 but focus on the quantification of freely accessible teaching/learning materials. I argue that published output of higher education teaching is the scientometric equivalent of published research output. Where scientometric indicators of published research material are fundamental to science policy discussions and decisions, scientometric indicators of published teaching material can be the basis for science policy discussions and decisions. To capture the state of the art on research and teaching-related open scholarship indicators, I present the method and results of a mapping review in chapter 3 (Weimer, Heck, van Leeuwen & Rittberger 2023). The review uncovers that open scholarship indicators are insufficiently discussed and applied when it comes to teaching. In the following I address the development and evaluation of a concept which discusses the quantification of freely accessible teaching/learning material (chapter 4) (Weimer & Kullmann 2023; Weimer & Kullmann 2024; Weimer & Kullmann 2025).