



ROYAL
ACADEMY OF
ENGINEERING

Career Framework for University Teaching: An overview for university managers



Career Framework for University Teaching:

An overview for university managers

April 2016

ISBN: 978-1-909327-24-5

© Royal Academy of Engineering 2016

Available to download from: www.raeng.org.uk/evaluatingteaching

For an online version of the report and evaluation toolkit: www.evaluatingteaching.com

Cover image courtesy of the University of Technology and Engineering, Peru

Author

Dr Ruth Graham, RH Graham Consulting Limited

Ruth Graham has been an independent consultant in engineering education and entrepreneurship since 2008, working with industry, governments, universities and professional bodies from across the world. Her work is focused on fostering change in higher education; helping to improve teaching and learning worldwide and supporting the emergence of technology-driven entrepreneurship within universities.

This report was commissioned by the Royal Academy of Engineering. The study was guided and supported by a steering group of Fellows from the Royal Academy of Engineering Education and Skills Committee.

Acknowledgements

The Academy is particularly grateful to the engineering academics, university managers and education professionals from across the world who contributed so generously to the framework by giving their time and sharing their experiences, knowledge and expertise. We would also like to extend our thanks to the external reviewers, listed in Appendix A, as well as the advisory group and members of the Education and Skills Committee from the Royal Academy of Engineering who provided invaluable feedback and advice on the draft framework.

Introduction

Universities across the world are engaged in a common drive to improve the quality of teaching. Central to this mission are robust frameworks for evaluating and rewarding the teaching achievements of academic staff. This guidance note describes such a framework. It is designed to enable universities and promotion candidates to define and evaluate teaching achievement at each stage of the academic career thus supporting both professional development and career progression. The framework draws on feedback from the international academic community, educational research and good practice from across the world. It covers teaching and research (T&R) career pathways as well as education-focused pathways, and is designed for use across disciplinary, institutional and geographic contexts.

This guidance note – outlining a framework for the evaluation of teaching achievement during academic appointment, promotion and professional development – marks the midpoint of a study commissioned by the Royal Academy of Engineering. The next phase will evaluate how well the framework works in practice. A global consortium of universities is providing feedback on the applicability of the framework within academic appointment, promotion and appraisal systems. A number of these universities are also piloting the framework or using it to guide a redesign of their reward/appraisal systems. Their experience will be used to refine the framework's design and to develop guidance for other universities wishing to adopt it.

This document provides a broad overview of the interim framework and is aimed at university managers with an interest in adopting the approach within their institutions. It addresses the following questions:

- 1. Why was the framework developed?:** the goals and focus of the framework are outlined, along with a summary of the drivers underpinning its development;
- 2. Who should be using the framework?:** it is noted that the framework is designed to support the professional development and career progression of university staff that are engaged in any teaching and learning activities as part of their professional role;

- 3. What does the framework provide?:** the three major components of the framework are described: (i) the broad **principles** underpinning career progression/development on the basis of university teaching and learning, (ii) promotion **criteria** for progression on the basis of teaching and learning, as defined in the framework, and (iii) guidance of how to identify and collect **evidence** of achievement and impact in university teaching and learning.

The final report will be published in late 2016. This will provide the updated framework, the research underpinning its development and guidance for its implementation in practice.

It should be noted that the term 'teaching achievement' is used within the framework to denote an individual's contribution, quality and impact in teaching and learning. The term is used to cover all educational activity – and not simply lecturing.

Further details of the framework, and the universities currently evaluating it, can be found at the website www.evaluatingteaching.com which also contains a link to the main report.

1. Why was the framework developed?

Recent decades have seen major transformations in higher education. The traditional focus on the quality of research – with motivating, measuring and rewarding research excellence – is being complemented by an increasing emphasis on teaching quality. Motivating, measuring and rewarding excellence are again key concerns. However, it is widely recognised that career advancement for academic staff rests primarily on their research profile, with teaching achievement playing only a marginal role.

The higher education community has taken steps to address this imbalance and improve the status and recognition of teaching at all stages of the academic career. For example, at an increasing number of universities across the world, promotion may be denied to academics whose teaching quality is below an acceptable threshold level (indicated by line A in Figure 1) while, at the same time, advancement opportunities may be available to a relatively small number of individuals on the basis of exceptional contributions to teaching and learning (indicated by line C in Figure 1). However, these cases represent only a small proportion of academics engaged in university education and any progressive improvement in teaching achievement between these two extremes (indicated by line B) goes largely unrecognised and unrewarded by universities.

The major structural barrier to change appears to be the absence of a clear definition of teaching achievement at each stage of the career ladder and the inadequacy of the metrics used for evaluating the teaching contribution of academic staff. Without the tools to assess and compare the quality of an academic’s educational contribution, the research-dominant culture within higher education is unlikely to change. In other words, if the recognition of teaching in higher education is to be improved, so must the ways in which we assess it.

The Career Framework for University Teaching is being developed to provide universities with a robust and transparent tool for defining and evaluating teaching achievement at all stages of the career ladder and for all levels of individual contribution to teaching and learning. In particular, the framework is designed to offer a clear set of definitions and criteria of teaching achievement that are not bounded by disciplinary, institutional or national contexts, thus maximising the opportunities for achievements to be transferable between institutions.

Further information about the drivers for the development of the framework, and the priorities underpinning its design, are provided in the main study report available at www.evaluatingteaching.com.

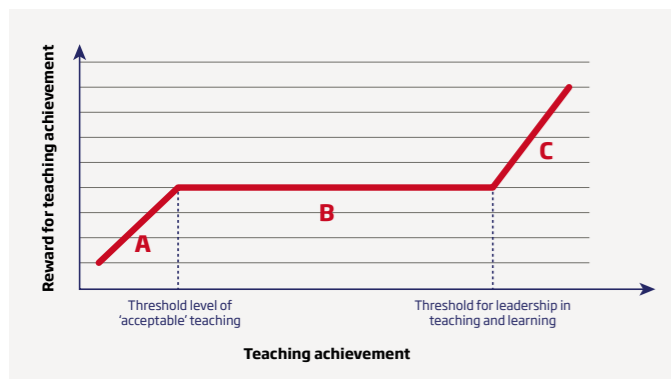


Figure 1. A model of how teaching achievement, and progressive improvement in this achievement, are currently understood to be rewarded in university promotion systems

2. Who should be using the framework?

The framework is designed to evaluate teaching achievement at each stage of the academic career and is intended to support professional development and appraisal as well as the appointment and promotion processes. It is designed for application across all disciplines and within all types of university.

Academic roles typically comprise a range of elements: teaching, research and other professional activities, such as administration or technology transfer. The balance between each of these activities varies considerably between individuals. For example, one academic may focus predominantly on teaching and learning (as illustrated by profile A in Figure 2), while another may give priority to research with only a minimum of teaching duties (profile C in Figure 2), and another may achieve a balance of time between teaching and research (profile B in Figure 2). What these individuals share is some level of responsibility for teaching and learning, and this activity – like all others in an academic’s portfolio – should develop and strengthen as the academic progresses through their career.

The framework is designed to guide and support (i) continuing improvement in the quality and impact of an academic’s contribution to teaching and learning, and (ii) the demonstration and evaluation of their achievements in teaching and learning during appointment, appraisal and promotion. It applies to all academics with any responsibility for teaching and learning, ranging from those whose career progression will be based predominantly on their educational achievements (profile A in Figure 1) to those for whom teaching will play a much less significant role in their case for career advancement (profile C in Figure 1).

The framework is designed for use in conjunction with evidence of achievement in other domains of the academic role, such as research or technology transfer.

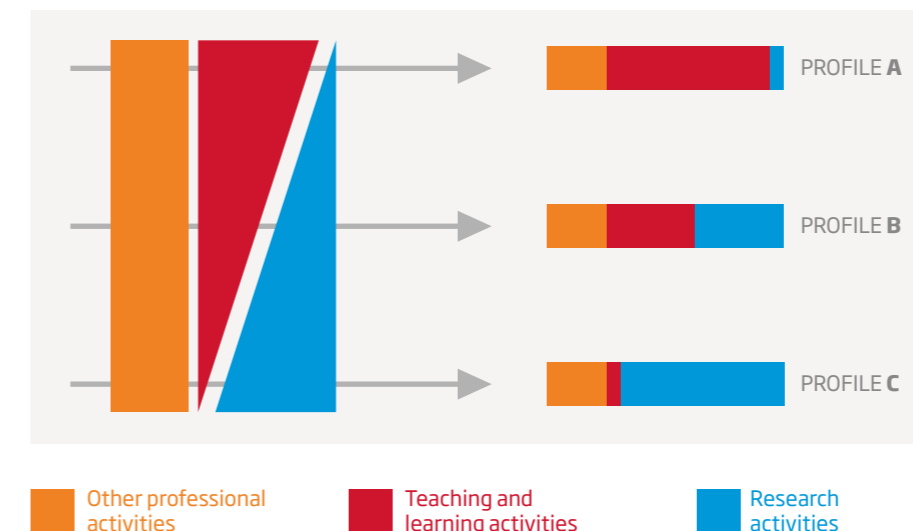


Figure 2. Range of academic profiles over which the framework can be applied

3. What does the framework provide?

The framework is designed to guide and support progression in teaching and learning for all academic staff. It comprises three broad elements:

A General principles underpinning progression: an overview is provided of the factors that drive development and career progression in university teaching and learning;

B Promotion criteria: details of the criteria underpinning progression to each of the framework's four levels are provided;

C Evidence to demonstrate achievement of the criteria: guidance is provided on the types of evidence that academics could use to demonstrate their achievements and impact in teaching and learning.

These three elements are each described in more detail.



Image courtesy XXXXXX XXXXXX

A. General principles underpinning progression

As outlined in Figure 3, the framework is structured around four progressive levels of teaching achievement. For each level, achievement is defined by an academic's impact in one or more of the following domains:

- **Impact on student learning:** the individual's direct impact on the learning and engagement of the students that they teach or tutor;
- **Impact on the educational environment:** the individual's direct impact and legacy with respect to teaching and learning across their institution, beyond their teaching duties (e.g., driving systemic curriculum reform, establishing a peer-mentoring system for teaching staff, or establishing cross-institutional educational collaborations);
- **Impact on educational knowledge:** the individual's contribution to educational research that influences both knowledge and practice in teaching and learning.

with the first of these domains: the candidate's direct impact on student learning. Progression beyond this point is distinguished by the candidate's contribution to one or both of the higher level domains: to improving the environment for teaching and learning and/or to enhancing pedagogical knowledge. So, from level 3 of the framework, career progression splits into two parallel branches – one focused on impact on the educational environment and one focused on impact on educational knowledge – and individuals can opt to focus on one or a combination of these branches. Both branches offer a pathway for progression to the fourth level, as a recognised national or global leader in teaching and learning. How the remaining levels of the framework might map onto different academic contracts and grade profiles is likely to vary between institutions and is best determined by each university concerned.

Further details on the principles underpinning promotion are provided in the main report or through the website at <http://www.evaluatingteaching.com/principles/>.

The two initial levels of the framework – 'effective teacher' and 'skilled and collegial teacher' – are primarily concerned

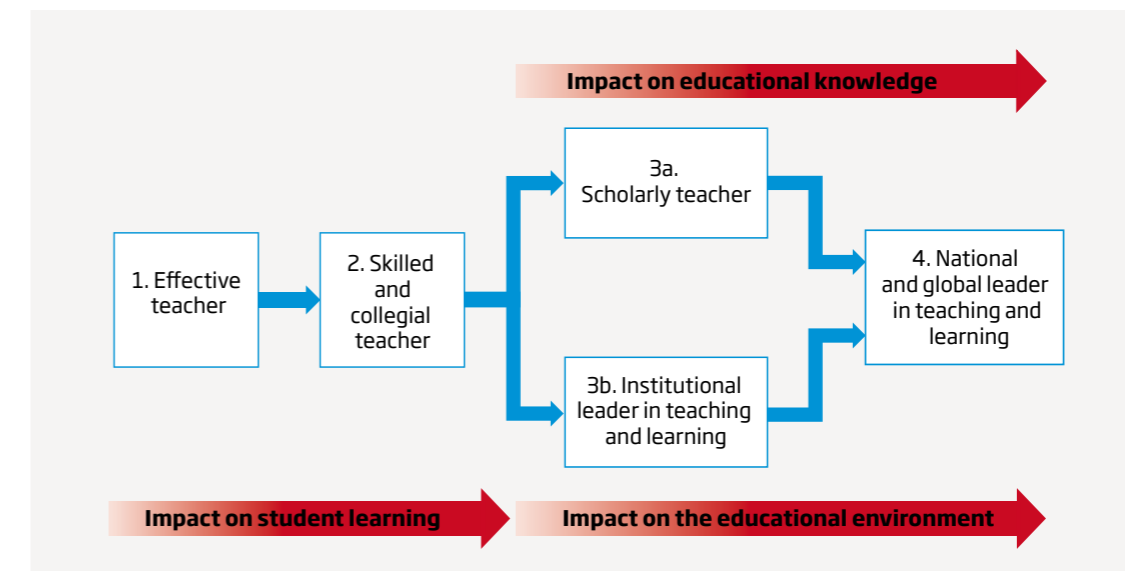


Figure 3. The four levels of teaching achievement defined in the framework

B. Promotion criteria

This section of the framework focuses on appointment and promotion, and provides the criteria that determine achievement at each of the four levels. These capabilities are summarised in Figure 4, which illustrates that, for example:

- **attitudes** and **delivery** underpin achievement at level 1 (*effective teacher*);
- **skills** and **collaboration** are added to the achievements required for promotion to level 2 (*skilled and collegial teacher*);
- building upon previous levels, achievement at level 3 is focused on educational **leadership** (*institutional leader in teaching and learning*) and/or educational **knowledge** (*scholarly teacher*), where candidates can opt to focus on one or both of these domains for progression to the level;

- national and global **influence** in teaching and learning – in educational knowledge and/or in educational practice – underpin achievement at level 4 (*national and global leader in teaching and learning*).

The framework provides further details of the promotion criteria corresponding to each of the framework levels, along with information about the likely range of influence of successful candidates in each case. These details can be accessed through the main report or the website at <http://www.evaluatingteaching.com/Promotioncriteria/>

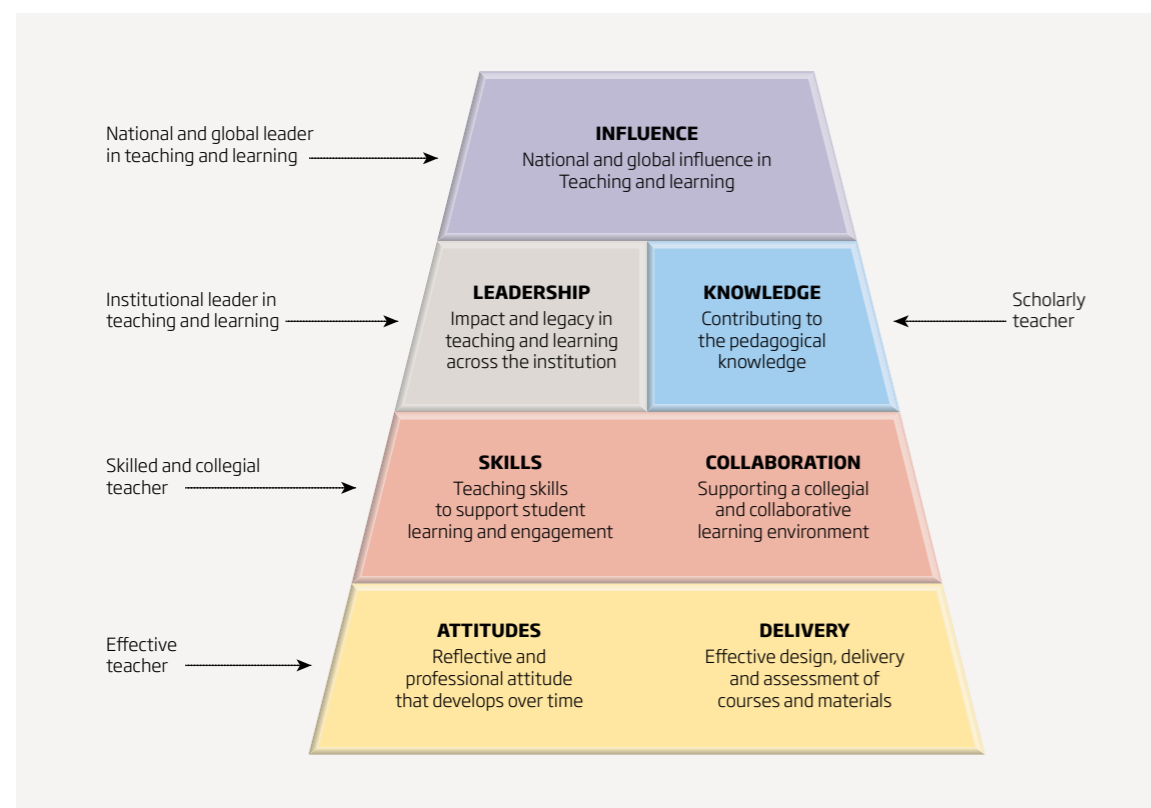


Figure 4. Summary of the promotion criteria for the four levels of achievement

C. Evidence to demonstrate achievement of the criteria

The final section of the framework provides guidance on the different forms of evidence that can be used by a promotion candidate to demonstrate teaching achievement at each stage of the academic career.

Full details of the evidence that can be used to demonstrate achievements in teaching and learning are provided in the main report and at <http://www.evaluatingteaching.com/Evidence/>.

There is a range of different forms of evidence that can be used by promotion candidates to demonstrate their teaching achievement, highlighting both their approach and impact. These forms of evidence have been grouped into five broad domains:

- 1. Self-assessment:** a self-reflective narrative describing the candidate's approach to teaching and learning, including how and why it has developed over time.
- 2. Professional activities:** a description of the candidate's professional activities in teaching and learning, providing insight into the nature, volume and range of contributions made, as well as their particular areas of interest and/or expertise.
- 3. Indirect measures of student learning:** 'indirect measures' are evidence that has been shown to correlate with student learning, while not measuring it directly.
- 4. Direct measures of student learning:** these measures capture direct evidence of student learning and are typically evaluated through considering 'learning gain' over a period of time (e.g., pre/post tests) or through comparing student capabilities against a control group or norm/benchmark.

- 5. Peer evaluation and recognition:** assessments from peer groups, both internal and external to the university. Peer assessments can relate to a range of different aspects of the candidate's teaching achievements, including their: (i) impact on teaching and learning within their institution, (ii) impact and influence beyond their own institution, including contributions to pedagogical knowledge, and (iii) esteem and recognition, through indicators such as teaching awards.

Using the five domains listed above as a guide, the types of evidence that candidates could use to demonstrate teaching achievement are summarised in Table 1 for each of the framework levels.

The framework provides a structured description of each of the five evidence domains, with case studies used where appropriate to demonstrate how such information can be collected and showcased within an appointment or promotion case.

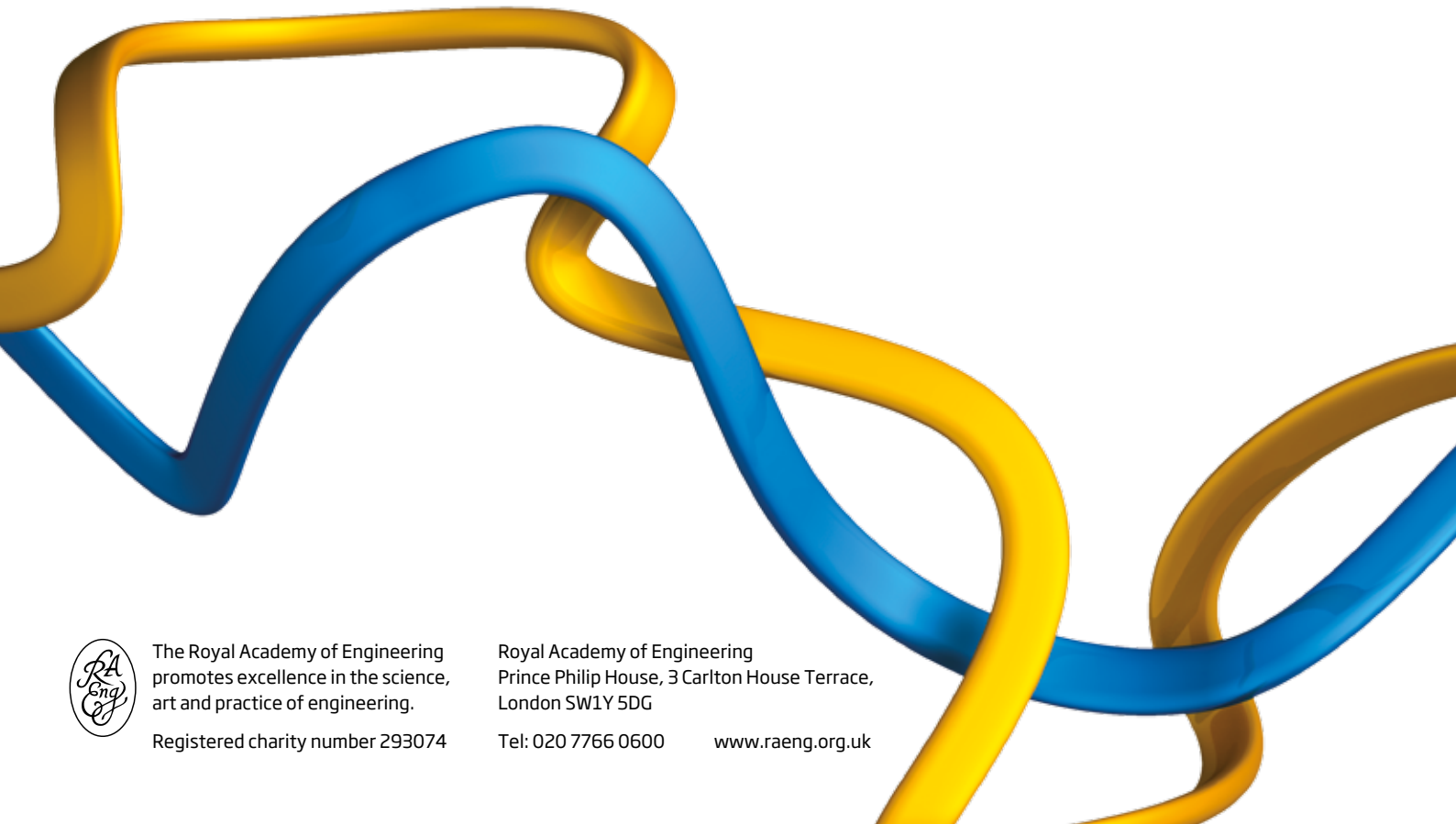
It should be noted that the information listed in Table 1 is neither prescriptive nor exhaustive; it offers guidance on the types of evidence that could be used to demonstrate achievement of the criteria, but the evidence selected will depend on each individual case. In addition, the boundaries between levels in Table 1 should not be considered to be fixed, and many evidence sources can be used against a wide range of roles.

	Self-assessment	Professional activities	Indirect measures of student learning	Direct measures of student learning	Peer review and recognition
Effective teacher	Reflects on their educational approach and its development over time, identifying how it supports effective student learning in the context of the cohort, discipline and institution	<ul style="list-style-type: none"> • Details of courses taught (student numbers, nature of teaching, etc) • Student support and guidance activities outside the curriculum • Participation in certification and training in teaching and learning • Samples of course materials 	<ul style="list-style-type: none"> • Student evaluation results and student interview feedback • Informal and unsolicited student feedback • Pass rates, attrition rates and student progression that can be attributed to specific courses 	<ul style="list-style-type: none"> • Examination/assessment results, benchmarked against other cohorts • Evaluation of student products, such as final year projects 	<ul style="list-style-type: none"> • Peer observation of teaching • Peer review of course content, objectives and materials and/or teaching portfolio • Review from teaching mentor • Letters of reference from: students, alumni, director of studies, head of school and course/programme leaders
Skilled and collegial teacher	Reflects on their personal teaching philosophy and its development over time, as well as the role they play in nurturing an academic environment that advances collective educational excellence	<p>Sources listed for Effective teacher, plus:</p> <ul style="list-style-type: none"> • Mentoring of teaching staff • Participation in programmes of educational reform or innovation • Institutional committee membership • External examiner/trainer • Membership of teaching and learning organisation 	<p>Sources listed for Effective teacher, plus:</p> <ul style="list-style-type: none"> • Retrospective assessment by alumni • Assessments made by graduate recruiters and employers with respect to specific courses/experiences • Student prizes/achievements that can be linked to specific course/programme 	<p>Sources listed for Effective teacher, plus:</p> <ul style="list-style-type: none"> • Student learning journals • Concept tests (course level) 	<p>Sources listed for Effective teacher, plus:</p> <ul style="list-style-type: none"> • Letters of reference from: staff mentees, external examiners and collaborators • Authorship of widely used text books • Pedagogical conference presentations • Institutional and national teaching awards/fellowships/prizes
Scholarly teacher	Reflects on their personal teaching philosophy, describing how evidence-informed approaches are used to contribute to both student learning and pedagogical knowledge	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Invited speaker at key events in teaching and learning • Visiting/honorary position at other institutions • Pedagogical peer reviewer • Active member of teaching and learning research group 	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Students' self-reported learning gains (course level) • Student engagement surveys (course level) 	<p>Sources listed for Skilled and collegial teacher</p>	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Letters of reference from research collaborators • Refereed conference and journal publications • Research grants and income
Institutional leader in teaching and learning	Reflects on how their leadership in teaching and learning has helped to create an inclusive, supportive and aspirational learning environment that advances student learning	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Leadership role in strategic institutional curriculum and/or policy development • Design and delivery of high-impact course innovation • Leadership of QA or accreditation processes • External reviewer/trainer/advisor 	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Assessments made by graduate recruiters and employers • Students' self-reported learning gains, student engagement surveys (programme or institutional level) • Programme pass rates/progression rates 	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Concept tests (programme level) • Standardised tests (programme level) 	<p>Sources listed for Skilled and collegial teacher, plus:</p> <ul style="list-style-type: none"> • Letters of reference from senior university managers, external collaborators and those who have taken inspiration from the candidate's educational approaches • Reports from collaborators, external impact reports/case studies
National and global leader in teaching and learning	Reflects on their national and global influence in teaching and learning, and their impact on advancing educational knowledge, collaboration and/or excellence	<p>Sources listed for Institutional leader in teaching and learning, plus:</p> <ul style="list-style-type: none"> • Participation in government consultation committees • Invited speaker at national/global events in teaching and learning • Participation in and leadership of high-impact national and global educational programmes 	<p>Sources listed for Institutional leader in teaching and learning, plus:</p> <ul style="list-style-type: none"> • Institutional surveys of student perception or experience • Programme/institutional pass rates/progression rates 	<p>Sources listed for Institutional leader in teaching and learning, plus:</p> <ul style="list-style-type: none"> • Standardised tests (institutional level) 	<p>Sources listed for Institutional leader in teaching and learning, plus:</p> <ul style="list-style-type: none"> • Publications, citations, research grants and income • National and global press coverage • National/global awards and prizes

Table 1. Examples of evidence that could be included in a promotion case for each level of teaching achievement, structured within five evidence domains



ROYAL
ACADEMY OF
ENGINEERING



The Royal Academy of Engineering
promotes excellence in the science,
art and practice of engineering.

Registered charity number 293074

Royal Academy of Engineering
Prince Philip House, 3 Carlton House Terrace,
London SW1Y 5DG

Tel: 020 7766 0600

www.raeng.org.uk