

# Does teaching advance your academic career?



Interim report on  
the development  
of a template for  
evaluating teaching  
achievement

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## Interim report on the development of a template for evaluating teaching achievement

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# Foreword

There are many routes to a successful academic career, and we are privileged in this country to have so many examples of great academics who lead their professions as both researchers and as teachers. But the experience is not uniform for many students.

This report from the Royal Academy of Engineering seeks to answer one of the biggest questions now under consideration in my Department and across the higher education sector: Does teaching advance your academic career?

As the first half of this report makes clear, there is a perception – and one we need to tackle – that pursuing a teaching-focused career can hold you back in academia. It is reassuring to know this view is not predominant at the more senior levels, but the report clearly exposes a gap among some levels of the academic profession.

This is a gap we need to bridge. And if any group of academics has the ability to bridge gaps, it must be the engineers.

In many ways, this report complements our Higher Education Green Paper and our plans for a Teaching Excellence Framework to recognise, celebrate and incentivise excellent teaching. The practical recommendations for the engineering sector could equally be translated to other disciplines too. I look forward to seeing how the sector takes these ideas forward.



**Jo Johnson MP**  
Minister for Universities  
and Science

# Executive summary

This interim report contributes to the ongoing debate within the higher education community about how teaching achievement should be evaluated during academic appointments and promotions. It presents a template that enables universities and promotion candidates to define and evaluate teaching achievement at each stage of the academic career. The template 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. The template could also be used to inform and structure university programmes of continuing professional development for academic staff.

The template defines four progressive levels of teaching achievement. The two initial levels are primarily concerned with the candidate's direct impact on student learning. Beyond this point, the template offers two parallel branches for progression – one focused on educational leadership and one focused on impact on educational knowledge – and candidates can opt to focus on one or a combination of these branches. The template provides the promotion criteria underpinning progression to each level, along with details of the evidence that candidates could use to demonstrate achievement of these criteria. This evidence has been grouped into five broad domains, including professional activities, student learning and peer recognition, illustrated by examples of how such evidence has been gathered and presented in successful promotion cases.

This interim report – presenting a template for the evaluation of teaching achievement during academic promotion – marks the midpoint of an ongoing study commissioned by the Royal Academy of Engineering. The next phase of the work is to evaluate how well the template works in practice. A consortium of universities from across the world has been assembled to provide institutional feedback about the applicability of the template within their promotion systems. A number of the universities will also be piloting the template within their promotion system from early 2016. The experience of these institutions will be used both to refine the template's design and to develop guidance for other universities wishing to adopt the template within their recognition systems in the future.

The final report from the study will be published in late 2016, providing the updated template, the research underpinning its development and guidance for its implementation in practice.

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# Introduction

Recent decades have seen major transformations in higher education. The primary focus to date has been on the quality of research: with motivating, measuring and rewarding research excellence. The spotlight is now turning to teaching quality. Motivating, measuring and rewarding excellence is again a key concern.

However, it is widely recognised that career advancement for academic staff rests primarily on research achievement, with teaching achievement playing only a marginal role. Despite a willingness expressed by the higher education community to improve the status and recognition of teaching at all stages of the academic career, there is a structural barrier to change: the inadequacy of the metrics used for evaluating the teaching contribution of academic staff. The metrics are widely understood to be poor indicators of teaching quality and hold the confidence of neither promotion candidates nor their university managers, as the Academy's first report on this issue showed (Graham, 2015). 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 be the ways in which we assess it.

The Royal Academy of Engineering has commissioned a study to address this issue. The study seeks to develop an evidence-informed template that could be used by universities and promotion candidates to evidence and evaluate teaching achievement. It is also envisioned that such a tool could be used to structure university programmes of teaching-focused continuing professional development and provide academic staff with individually tailored pathways that enrich and support their academic careers.

The work is being conducted in two phases. This report marks the conclusion of Phase 1 of the work, at the midpoint of the study:

- **Phase 1** drew together knowledge and best practice from across the world to develop a research-informed template for the evaluation of teaching achievement. At the close of Phase 1, the template was reviewed by eleven experts (see Appendix A), updated accordingly and is presented in this report.
- **Phase 2**, launched in September 2015, will evaluate how well the template works in practice. Selected universities from across the world have been invited to provide institutional feedback about the applicability of the template within their promotion systems. A subgroup of these universities will also be piloting the template within academic reward and professional development systems from early 2016.

Further details on the two phases of the study are provided in Appendix B. The full study report will be released by the Royal Academy of Engineering in late 2016. In addition to the finalised template, this report will present the research that underpinned its development, including case studies of best practice from across the world and outcomes of a benchmarking study comparing the different approaches taken by the world's top-ranked universities to evaluate teaching achievement during academic promotion. Marking the midpoint of the study, this document focuses only on the template itself.



## Four points should be noted about this document.

**Firstly**, the work is focused on evaluating the teaching achievement of all academics whose role involves any teaching. In other words, the template developed is not solely concerned with teaching-focused academics; rather, it considers the progressive levels of teaching achievement across the range of academic profiles, from research-led academics whose teaching meets a threshold level of acceptable teaching, through to academics who are solely dedicated to teaching and learning. It should be noted that an academic on a teaching and research (T&R) contract would be expected to fulfill the teaching achievements listed in the template in addition to their disciplinary research and other responsibilities of their role.

**Secondly**, the term 'teaching achievement' has been used throughout this document to denote an individual's contribution, quality and impact in teaching and learning. On the basis of the feedback received, this term appeared to be both acceptable to the academic community and the teaching and learning research community. It should also be noted that the term 'teaching achievement' has been used to cover all educational activity – and not simply lecturing. It therefore includes contributions to educational research, as well as impact on the quality of teaching and learning at an institutional, national and/or global level.

**Thirdly**, the study was not designed to develop new tools for measuring teaching achievement. Rather, it aims to identify and draw together best practice and knowledge into a single template that supports the academic promotion process.

**Finally**, the template has been designed for application across all disciplinary, institutional and geographic contexts. Although some of the research underpinning the template's design has been sourced from the engineering academic community, evidence from other studies (Cashmore et al, 2013; Ramsden and Martin, 1996; Fairweather, 2008; Norton et al, 2013; Fung and Gordon, 2016; Academy of Medical Sciences, 2010; HEA, 2013) suggests that these concerns and issues are equally shared by the wider academic community. The creation of a cross-disciplinary and cross-institutional tool is intended to allow academics' teaching achievements to be portable – to be recognised across institutions and countries.

The document is structured in five sections, as outlined overleaf. Section 1 introduces the context for the template. Section 2 defines four progressive levels of teaching achievement. For each achievement level, Section 3 identifies corresponding promotion criteria and Section 4 indicates the types of evidence that could be used to demonstrate achievement of the criteria. The document closes with a short summary of the template (Section 5).

	Content of the section	Who would use the section?	How would it be used?	
<p>Section <b>1</b></p>	<p><b>Background information:</b> in lieu of the final report from the study (which will be published in late 2016), this section provides contextual information on how and why the template was developed, as well as the priorities in its design.</p>	<p>Teaching and learning leaders University managers</p>	<p>To inform university leaders and managers about the goals and design of the template, helping to guide their decision about whether some or all of the approach would be suitable for adoption within their institution.</p>	<p><b>1: Context</b></p>
<p>Section <b>2</b></p>	<p><b>Levels of teaching achievement:</b> four progressive levels of teaching achievement are provided, covering the spectrum of contributions that an academic could make to teaching and learning, from a threshold level of 'effective teaching' through to global leadership and influence in education.</p>	<p>University managers HR managers Heads of department or school</p>	<p>To help define the level of teaching achievement expected for different grade profiles on the academic career ladder, for both teaching and research (T&amp;R) and teaching-focused pathways.</p>	<p><b>2: Levels</b></p>
<p>Section <b>3</b></p>	<p><b>Promotion criteria:</b> promotion criteria corresponding to each of the four levels of teaching achievement are presented.</p>	<p>HR managers Promotion committee Promotion candidates</p>	<p>To identify the teaching and learning requirements for promotion at each grade.</p>	<p><b>3: Criteria</b></p>
<p>Section <b>4</b></p>	<p><b>Evidencing teaching achievement:</b> guidance is provided on the types of evidence that candidates could use to demonstrate their teaching achievement, along with illustrative examples of how these data can be collected and presented in a promotion case.</p>	<p>Promotion committee members Promotion candidates</p>	<p>To identify the types of evidence of teaching achievement that could support a successful promotion case and to provide guidance on how such information can be collected.</p>	<p><b>4: Evidence</b></p>
<p>Section <b>5</b></p>	<p><b>Summary:</b> The final section provides an illustrative example of how the template might be used in practice, by mapping the levels, promotion criteria and evidence sources onto an existing promotion case.</p>	<p>Promotion candidates</p>	<p>To help candidates set their achievements in the context of the promotion criteria and identify and collect suitable evidence to support their case.</p>	<p><b>5: Summary</b></p>

For convenience, the template is provided here in a single document. However, when used in practice each of the sections summarised above would likely be produced as separate stand-alone components of a promotion toolkit, as each is intended for different audiences.

## Section 1

# The goals and focus of the template

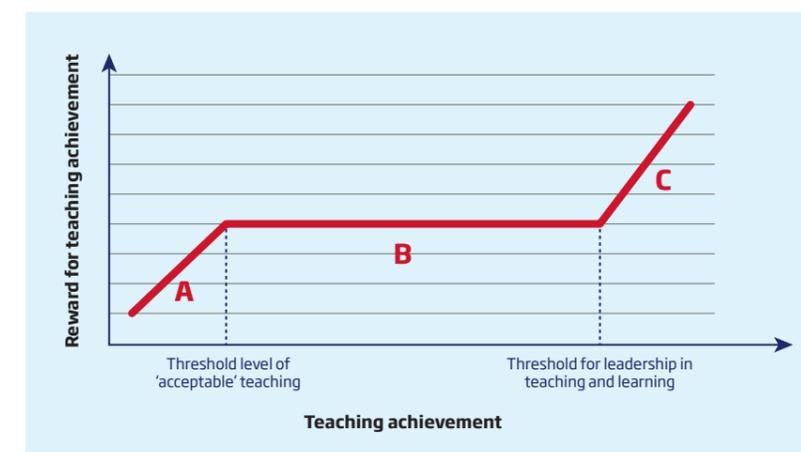
This section provides a short introduction to the template, outlining the drivers underpinning its development as well as its goals and priorities. The rationale behind the template's structure is also described, along with background information on the research and best practice that influenced its design.

## 1.1 Context for the template development

A central finding of the recent Royal Academy of Engineering study on the recognition of teaching in academic promotion (Graham, 2015) was the profound difference in view between rank-and-file academics (those who would be potential candidates for promotion) and senior managers at departmental and university level (those who would typically sit on university promotion committees). To summarise, the dominant view of academic staff was that teaching achievement was not rewarded during university promotion, while their counterparts in more senior university roles described a recent and profound change in the system of university rewards in which teaching achievement had become a much more prominent component. An obvious question emerging from this analysis is: which set of views more accurately reflects the reality? It could be argued that the answer, in fact, is both; the divergence in view may be due to the differences in the field of focus of the two groups, as discussed below.

In reporting the changing landscape for rewarding teaching within their institutions, **senior university managers** consistently cited two indicators that had shaped their view: (i) the introduction of "genuine consequences for poor teaching", where they had seen promotion being denied to academics whose teaching quality was below an 'acceptable' threshold level, and (ii) the recent establishment of teaching-focused career tracks that had allowed a small number of individuals to progress to senior academic positions on the basis of exceptional contributions to teaching and learning. These two sets of circumstances are indicated by lines A and C respectively in Figure 1. Recent research in the UK context (Cashmore et al, 2013) suggests that, indeed, such observations by senior managers reflect some genuine and positive changes in the recognition and reward of university teaching in the past decade. Nonetheless, such circumstances – as denoted by lines A and C – are likely to represent less than 10% of academic promotion cases.

In contrast, the field of focus for **academic staff** appeared to encompass the remaining 90% of promotion cases: T&R academics whose teaching contribution exceeded a minimal threshold of acceptability, but who would not be considered as teaching and learning leaders. As suggested by line B in Figure 1, the perception reported by academic staff was that any progressive improvement in teaching achievement between these two extremes was not recognised or rewarded by their institutions. For academics not in teaching-specialist roles, teaching-based promotion criteria were seen as a mechanism to identify individuals whose teaching was below an acceptable threshold, rather than recognise teaching achievements that would add further weight to a promotion case. Many academic staff also suggested that this minimum threshold for teaching achievement was fixed, and did not increase as candidates progressed through their careers. In other words, while progressive improvements in research achievement are a fundamental requirement for advancement up each rung of the T&R career ladder, equivalent improvements in teaching achievement were not expected. Again, these views appeared to be well-founded and were supported by their own personal experiences of the promotion system and by wider observations of the career progression of colleagues.



A number of conclusions can be drawn from this feedback from the academic community that have direct relevance for the design of the new template.

Firstly, the template should allow universities to embed a progressive increase in the minimum threshold for acceptable teaching as a requirement for progression to more senior roles.

Secondly, the template should accommodate a range of levels of teaching achievement that mark advancement beyond this minimum threshold, allowing for progression between the two extremes of lines A and C indicated in Figure 1. Defining steps in the career ladder that relate specifically to the teaching element of an academic's portfolio would provide, for example, the flexibility to reward T&R academics who wished to increase the weight placed on teaching in their promotion case, while still offering a balanced teaching and research portfolio.

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



## 1.2 Guiding principles for the template's design

As outlined in Section 1.1, the study overall is focused on developing a new template for evaluating teaching achievement during academic promotion which both defines a minimum threshold of achievement that increases with career progression, and offers opportunity for the recognition of additional achievement beyond this minimum. Outcomes of the previous and current study (to date) have also made clear that the template needs to address a number of additional priorities and challenges.

The template should:

- **Be flexible, portable and commensurable with research criteria:** Across the academic community and within each discipline, the core measures of research achievement are well understood and recognised. Beyond standard measures of scientific excellence, these promotion systems typically have the flexibility to recognise different types of research contribution – for example, to industrial impact or to prestigious publications – and academics would not be required to contribute equally to both domains to meet the promotion criteria. In an equivalent way, the template for evaluating teaching achievement must offer flexibility and transparency. At the same time, the template should be designed to offer a clear set of definitions and criteria that are not bounded by disciplinary, institutional or national conventions, maximising the opportunities for achievements to be transferable between institutions. In this way, teaching achievements would be ‘portable’; recognised by other universities in an equivalent manner to research achievements.
- **Minimise the academic burden:** In contrast to research achievement, where academics engage in a continuous and rigorous process of peer review via routes such as journal publications and research grant capture, ongoing evaluation of individual teaching achievement is not an accepted feature of the academic culture. The design of the template must be sensitive to this environment, and the process for evidencing and evaluating teaching achievement should not be overly burdensome for candidates or university promotion committees. It should also inform the design of their continuing professional development in teaching and learning, allowing academics to structure their progress towards each step on the university promotion pathway.

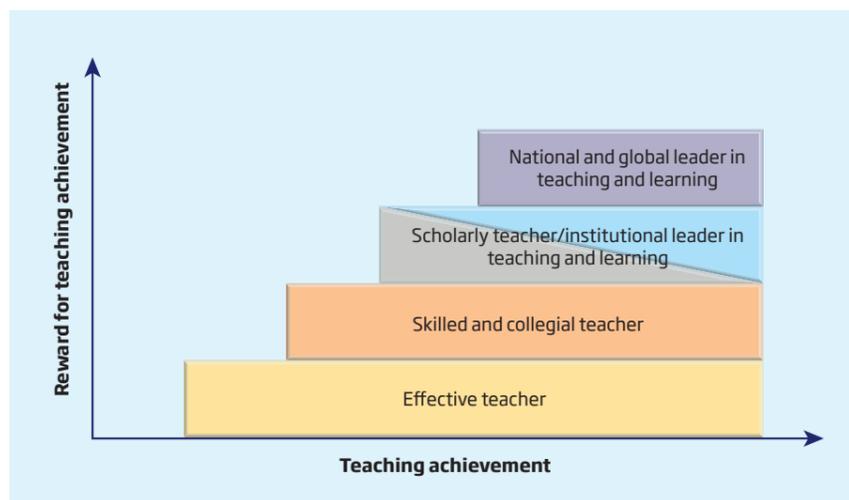
- **Recognise contribution to educational practice as well as educational scholarship:** The emergence of teaching and learning career pathways in universities across the world has brought a reliance on educational scholarship (or pedagogical research<sup>1</sup>) as often the primary criterion for advancement to more senior levels, particularly at research-led institutions. There is no doubt that contribution to pedagogical knowledge is one important marker of achievement, particularly for those mainstreaming in teaching and learning at more senior levels. However, scholarship-driven rewards processes often fail to recognise contributions made by academics to improving and supporting the teaching and learning environment, despite the wide-reaching impact that such contributions can have within and beyond the candidate's institution. Examples include driving systemic curricular change or leading institutional teaching and learning strategy development/review. The template should therefore have the facility to support academic progression on the basis of contributions to educational practice, both in the candidate's institution and more broadly across the university sector, as well as on the basis of contributions to educational scholarship. It should also recognise contributions to nurturing a collegial and supportive educational culture across teaching staff within the candidate's group or discipline; an environment shown to support the development of an effective and coherent programme of education (Fisher et al, 2003; Graham, 2012).
- **Provide clarity about the forms of evidence that can support a case:** Institutional promotion guidelines often ask candidates to provide, for example, “evidence of how you have improved student learning” or “evidence of innovations in pedagogy”. However, limited advice is typically offered about the forms of evidence that would be considered suitable or how such information could be collected and presented. As a result, many candidates rely heavily on single sources of evidence, typically student evaluation scores. Indeed, the evaluation of promotion guidelines among the world's leading universities, conducted during Phase 1 of this study, revealed that many institutions do not provide any clear guidance about the forms of evidence that would support the educational elements of a promotion case. In addition, there is often a lack of distinction between teaching-based promotion criteria (the characteristics of teaching achievement that the institution would look for in a successful candidate) and teaching-based evidence (the qualitative and quantitative data that could/should be provided to demonstrate the candidate's achievement of the criteria). Indeed, promotion guidelines at many universities appear to confuse the two, listing sources of evidence (such as peer-reviewed educational publications) within the promotion criteria or listing promotion criteria (such as “demonstrating that good conditions for student learning have been established”) as a suggested form of evidence to include in a promotion case. This lack of clarity appears to add further confusion to the process of identifying and collecting evidence to support a promotion case. The template should be clear about the types of evidence that promotion candidates could use to demonstrate teaching achievement, with guidance on how this information can be gathered in practice.

<sup>1</sup> Pedagogy is defined as “the processes and relationship of teaching and learning” (Stierer and Antoniou, 2004). Pedagogical research is that which contributes to a deeper understanding of these processes and relationships through a “systematic and sustained inquiry, planned and self-critical, which is subjected to public criticism and to empirical tests where these are appropriate” (Stenhouse, 1985).

### 1.3 Structure of the template

Guided by the principles outlined above and the evidence collected during Phase 1 of the study, a template has been constructed, which is presented in Sections 2–4 of this document. The template has three constitutive elements. The first element is the specification of progressive levels of teaching achievement. The second element is the criteria that would underpin progression to each of these levels. The third element is the evidence that candidates and universities would use to assess achievement of the criteria.

The template defines four levels of teaching achievement, from the threshold for acceptable university teaching – an ‘effective teacher’ – through to an individual with influence and impact on an international stage – a ‘national and global leader in teaching and learning’. On the basis of these levels, Figure 2 illustrates how progressive improvements in teaching achievement would be recognised and rewarded using the template, and can be seen as a corrective to current perceptions of university approaches represented in Figure 1.



The two initial levels of the template – ‘effective teacher’ and ‘skilled and collegial teacher’ – are primarily concerned with the candidate’s direct impact on student learning. Beyond this point, the template offers two parallel branches for progression – one focused on impact on the educational environment and one focused on impact on educational knowledge – and candidates 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 and/or international leader in teaching and learning.

**Figure 2.** A model for rewarding progressive improvements in teaching achievement

For each level, the template provides a corresponding definition of teaching achievement, identifies the promotion criteria and indicates the types of evidence that could be used to demonstrate achievement of the criteria. A summary of the key evidence that guided the design of each of these elements of the template is provided on the next page.



- Definition of teaching achievement:** Teaching achievement in higher education rests on a wide range of contributions to the environment and processes that support student learning and therefore does not lend itself to a single definition. However, teaching achievement can be evidenced through the candidate’s impact. The template is built around three dimensions of impact: (i) direct impact on student learning, (ii) impact on the environment for teaching and learning within and beyond the candidate’s university, and (iii) impact on pedagogical scholarship, that influences both knowledge and practice. The definitions of teaching achievement provided in the template – corresponding to each level illustrated in Figure 2 – draw on the pedagogical research literature, good practice across the world and guidance from experts in teaching and learning. In particular, the work of Kreber (2002), Boyer (1990) and Shulman (2000) guided the definitions of ‘skilled and collegial teaching’ and ‘scholarly teaching’, and the work of various Swedish pedagogical experts (Ryegård et al, 2010; Olsson and Roxå, 2013) guided the definition of the ‘effective teacher’. Institutional impact in education is often overlooked in the literature on the recognition of teaching achievement (Gunn and Fisk, 2014; Fung and Gordon, 2016). The definitions of the ‘institutional leader in teaching and learning’ and aspects of the ‘national and global leader in teaching and learning’ provided in the template were therefore guided primarily by feedback from the academic community and good practice at key universities across the world.
- Promotion criteria:** The promotion criteria provided in the template were informed by various examples of good practice, including the Higher Education Academy Fellowship scheme (UK), Uppsala University (Sweden), University of South Australia (Australia) and Chalmers University of Technology (Sweden) as well as key sources in the field (including: King et al, 2009; Olsson and Roxå, 2013; Academy of Medical Sciences, 2010; Gunn and Fisk, 2014; HEA, 2011).

- Evidence that could be used to demonstrate achievement of the criteria:** The final element of the template provides five different evidence domains that can be used to demonstrate achievement in teaching and learning. This section of the template was guided by (i) best practice in university promotion guidelines, such as at the University of Wollongong, University of South Australia, the University of Edinburgh and Hong Kong University of Science and Technology, (ii) key literature on evidence that can be used to demonstrate teaching achievement (including: King et al, 2009; Academy of Medical Sciences, 2010; Fox and Hackerman, 2003; Henderson et al, 2014; Chism, 2006; Gibbs 2014; OECD, 2013), and (iii) protocols proposed for categorising evidence of teaching achievement (including: Breslow, 2007; Smith, 2008; HEA 2013; Wills et al, 2010; Gunn and Fisk, 2014).

The final report, to be published in 2016, will provide full details of the process by which the template has been developed, as well as the evidence that informed its content and approach.

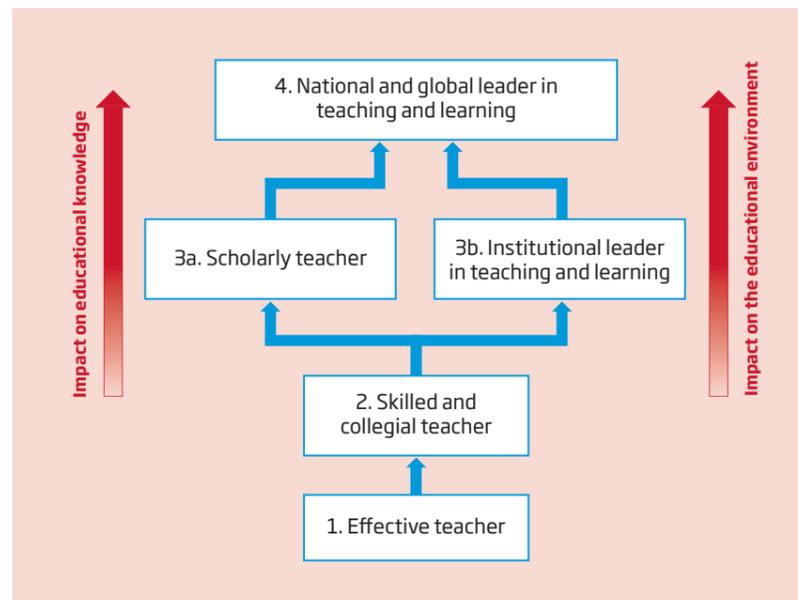
It should be reiterated that the template is aimed primarily at recognising and rewarding teaching achievement among T&R academics, although it will undoubtedly have applicability for individuals on teaching- and learning-focused pathways. The template has also been developed for application in a range of disciplinary and institutional contexts.

## Section 2

# Levels of teaching achievement

This section defines the four progressive levels of teaching achievement used within the template. The two early levels focus on the candidate's direct impact on student learning. The two more advanced levels offer two parallel branches – one focused on educational research and one focused on educational impact in practice – each offering the opportunity to advance to the highest level; candidates can opt to focus on one or both of these branches.

As outlined in Figure 3, the template is structured around four progressive levels of teaching achievement.



**Figure 3.** The four progressive levels of teaching achievement defined in the template

For each level, achievement is defined by the candidate's impact in one or more of the following domains:

- **Impact on student learning:** the candidate's direct impact on the learning and engagement of the students that they teach or tutor
- **Impact on the educational environment:** the candidate's direct impact and legacy with respect to teaching and learning across their institution, beyond their teaching duties (eg driving systemic curriculum reform, establishing a peer-mentoring system for teaching staff, establishing cross-institutional educational collaborations)
- **Impact on educational knowledge:** the candidate's contribution to pedagogical scholarship<sup>1</sup> that influences both knowledge and practice in teaching and learning.

The two initial levels of the template – 'effective teacher' and 'skilled and collegial teacher' – are primarily concerned 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 remaining domains: to improving the environment for teaching and learning and/or to enhancing pedagogical knowledge. So, from level 3 of the template, the progression route splits into two parallel branches – one focused on impact on the educational environment and one focused on impact on educational knowledge – and candidates can opt to focus on one or a combination of these branches in their promotion case. Both branches offer a pathway for progression to the fourth level, as a recognised national or global leader in teaching and learning.

It should be noted that the levels are seen as cumulative, with achievement at a higher level expected to be in addition to continuing achievement at lower levels. All levels of the template presuppose subject content knowledge and pedagogical training, including appropriate national/institutional qualifications.

The role and contribution of each level of teaching achievement is given below:

1. The **effective teacher** takes a conscientious and reflective approach, creating positive conditions for student learning and demonstrating effective teaching delivery that develops over time.
2. The **skilled and collegial teacher** takes an evidence-informed approach to their development as a teacher, providing mentorship to their peers to support a collegial and collaborative educational environment across their school or discipline.
  - 3a. The **scholarly teacher** makes a significant contribution to pedagogical knowledge by engaging with and contributing to the scholarly research literature. Successful candidates would influence educational practice as well as educational knowledge.
  - 3b. The **institutional leader in teaching and learning** makes a significant contribution to enhancing the environment for inclusion and excellence in teaching and learning within and beyond their institution. Successful candidates might, for example, have made significant contributions to curriculum renewal and programme review or to the development of support systems for students/teaching staff. It should be noted that this template level does not reflect the managerial responsibilities of the candidate, but rather their legacy and impact on educational quality across the institution.



4. The **national and global leader in teaching and learning** makes exceptional contributions to teaching and learning in higher education through national and global influence and leadership. The successful candidate would demonstrate contribution to educational practice (for example, through advancing global partnership or leading multi-institutional educational reform) and/or impact on pedagogical research.

The 'effective teacher' represents a threshold level of teaching achievement which all academics should attain. It is anticipated that the 'national and global leader in teaching and learning' would be reserved for those progressing to full professorships solely or predominantly on the basis of their teaching achievement. How the remaining levels of the template might map onto academic grade profiles, for both the T&R and teaching-focused career pathways, should be determined by the institutions concerned. However, two possible examples, both set in the context of UK grading structures for academic staff, are provided in the boxes below.

**Example 1: Mapping the template levels directly onto university grade profiles**

One option for universities would be to use the template to embed a progressive increase in the minimum threshold for acceptable teaching as a requirement for progression to more senior academic positions. So, as illustrated in the table below, for both T&R and teaching focused academics, the university might map the 'effective teacher' to the lecturer level, the 'skilled and collegial teacher' to the senior lecturer level, and the 'scholarly teacher' and 'institutional leader in teaching and learning' to the professorial level.

Template level	Minimum threshold for progression to the level (for T&R academics)	Minimum threshold for progression to the level (for teaching-focused academics)
<b>1. Effective teacher</b>	Lecturer	-
<b>2. Skilled and collegial teacher</b>	Senior lecturer	Lecturer
<b>3. Scholarly teaching/ institutional leader in teaching and learning</b>	Professor	Senior lecturer
<b>4. National and global leader in teaching and learning</b>	-	Professor

**Example 2: Using the template to increase the flexibility of the promotion system**

An alternative option might be to use the template to provide greater flexibility in the promotion system, allowing T&R academics who excel in teaching and learning to place a greater emphasis on education in their promotion case, beyond the minimum threshold for teaching and learning at that grade. Under such a system, the university may wish to set the 'effective teacher' and 'skilled and collegial teacher' levels as the minimum acceptable thresholds for early-career academics (lecturers) and senior academic staff (senior lecturers/ professors) respectively. The remaining levels of the template would then be used to reward T&R academics wishing to place a greater professional emphasis on teaching and learning, while still maintaining their research- or teaching-focused academics.

Template level	Minimum threshold for progression to the level (for T&R academics)	T&R academic with greater weight attached to teaching and learning in their promotion case	Minimum threshold for progression to the level (for teaching-focused academics)
<b>1. Effective teacher</b>	Lecturer, senior lecturer	Lecturer	-
<b>2. Skilled and collegial teacher</b>	Professor	Senior lecturer	Lecturer
<b>3. Scholarly teaching/ institutional leader in teaching and learning</b>		Professor	Senior lecturer
<b>4. National and global leader in teaching and learning</b>	-		Professor

Further information about each of the template levels is given in Section 3 of this document.

## Section 3

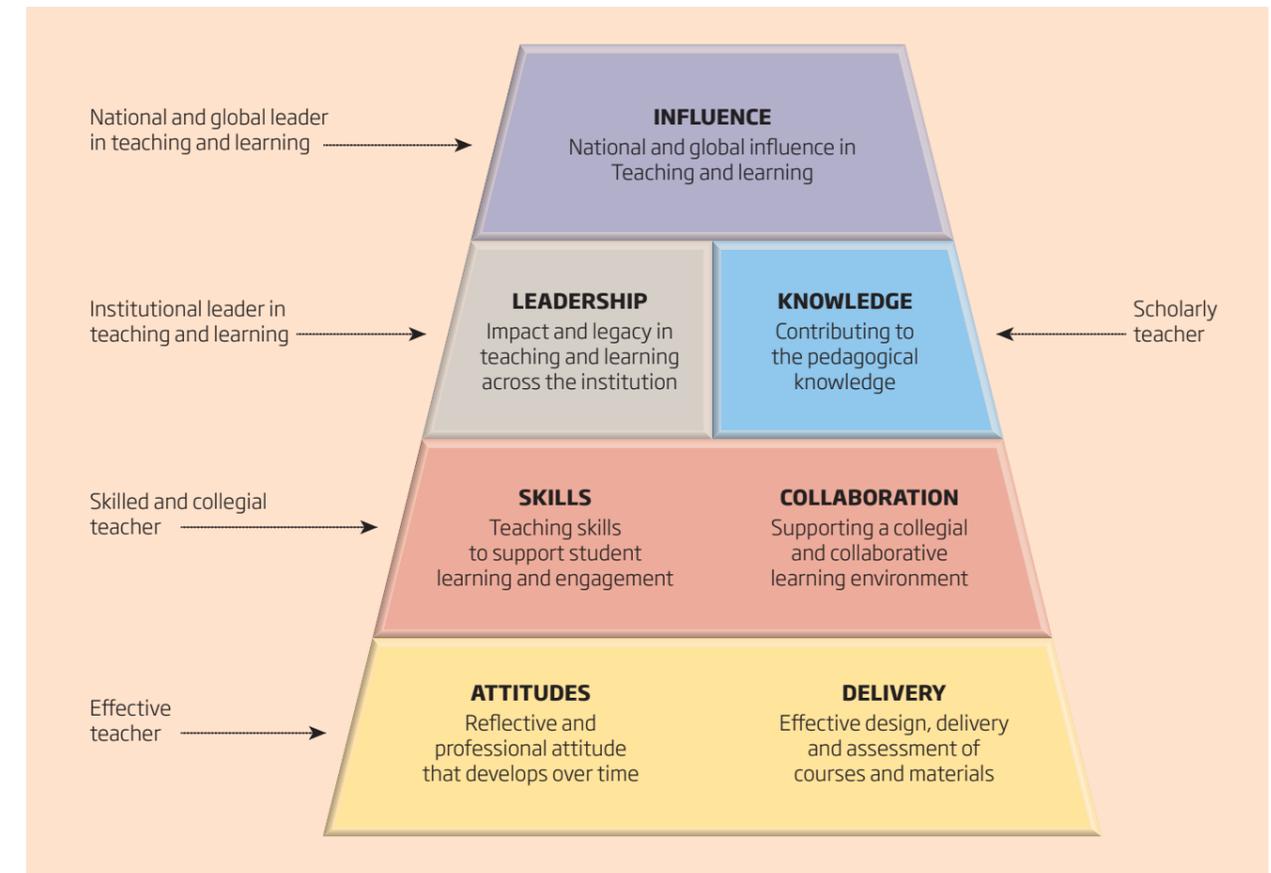
# Promotion criteria

This section outlines the promotion criteria for each of the four levels of teaching achievement defined in the template. Taking each level in turn, it provides:

1. a definition of teaching achievement corresponding to the level
2. the promotion criteria that would apply to the level
3. the 'range of influence' of the successful promotion candidate, describing the primary communities that they would be expected to impact.

Section 2 of this document outlined the levels of teaching achievement that frame the template. This section considers the criteria that determine achievement at each level. Criteria have been conceptualised around key candidate capabilities that are required for promotion to each level. These capabilities are shown in Figure 4. For example, it illustrates that:

- **attitudes** and **delivery** underpin the 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 education knowledge and/or in educational practice - underpin achievement at level 4 (national and global leader in teaching and learning).



Subsections 3.1-3.5 provide further details of the promotion criteria corresponding to each of the template levels, along with information about the likely range of influence of successful candidates in each case.

For each level of the template, subsections 3.1-3.5 state that the successful candidate would comply with "some or all" of the promotion criteria listed. Individual institutions may wish to be more specific about the extent to which these criteria should be met.

As stated previously, the levels of the template are seen as cumulative, with achievement at a higher level expected to be in addition to continuing achievement at lower levels.

All levels presuppose subject content knowledge and pedagogical training, including appropriate national/institutional qualifications.

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



### 3.1 Effective teacher

#### Definition of the effective teacher

The effective teacher creates positive conditions for student learning – by establishing approaches to educational design, delivery and assessment that are appropriate for the subject, student cohort and institutional context – and takes a reflective approach to developing and improving their teaching practice over time.

#### Criteria for evaluating the effective teacher

The successful candidate would demonstrate effective teaching through fulfilling some or all of the criteria within two key domains:

- **Attitudes:** a reflective and professional attitude that develops over time:
  - demonstrates a student-centred approach, promoting professional and inclusive interactions with students within and beyond the classroom
  - offers a well-defined teaching philosophy with a reflective and analytical approach to continuously improve their teaching and learning practice
  - demonstrates a conscientious and systematic focus on enhancing student learning and participation within and beyond the classroom
  - inspires and motivates students as innovators, independent learners and critical thinkers
  - engages in horizon-scanning across their subject or profession to ensure that students' knowledge and skills reflect the cutting-edge of their discipline
- **Delivery:** effective design, delivery and assessment of courses and materials:
  - plans, organises and delivers a range of teaching and learning experiences, tailored to the specific needs of the programme, students and intended learning outcomes
  - provides assessment and feedback that foster student engagement and independent learning
  - responds in a timely and professional manner to individual student learning needs
  - coordinates and manages courses effectively, including the development of appropriate supporting materials
  - appreciates programme objectives, institutional quality assurance (QA) processes and, where relevant, the standards set by professional bodies

#### Range of influence of the effective teacher

The primary community influenced by the effective teacher is the students whom they teach and tutor. Teaching achievement would be primarily demonstrated through the candidate's impact on the learning, engagement and participation among these student groups and the candidate's reflective approach to developing their own teaching practice.

### 3.2 Skilled and collegial teacher

#### Definition of the skilled and collegial teacher

The skilled and collegial teacher takes an evidence-informed approach to developing and improving their teaching practice over time. They also provide leadership and mentorship to peers to help nurture a collective and collegial culture of excellence in teaching and learning across their group or discipline.

#### Criteria for evaluating the skilled and collegial teacher

In addition to the attitudes and delivery expected of an effective teacher, the successful promotion candidate will demonstrate skilled and collegial teaching through fulfilling some or all of the criteria within two domains:

- **Skills:** teaching skills that support student learning and engagement:
  - offers students a holistic view of their programme and discipline
  - demonstrates skill, experience and creativity with a range of pedagogies
  - demonstrates the appropriate use of evidence-informed approaches to enhance student learning
  - delivers successful innovations in course design, delivery and/or content
- **Collaboration:** supporting a collegial and collaborative educational environment:
  - inspires and supports colleagues to develop and improve their teaching, including through the use of information technologies and module materials
  - contributes to a collegial and collaborative educational culture across departmental teaching staff, for example, through leadership of peer support activities or support for curricular reform activities
  - participates in an exchange of teaching experiences and ideas with colleagues and the wider higher education community
  - proactively monitors the student teaching and learning experience and responds in a timely and professional manner to concerns about course design, content and delivery (at programme, year or module level)

#### Range of influence of the skilled and collegial teacher

In addition to the students taught and tutored, the communities influenced by the skilled and collegial teacher include the academic peer group that they have inspired, supported and mentored within their own institution. Teaching achievement would be demonstrated by (i) the candidate's reflective approach to developing their own teaching practice, (ii) the candidate's impact on the skillsets and approaches among peers, and (iii) the learning, engagement and participation of the students that the candidate has taught and tutored.

Image courtesy of the Eindhoven University of Technology



### 3.3 Scholarly teacher

#### Definition of the scholarly teacher

The scholarly teacher engages with and contributes to the scholarly research literature, influencing knowledge and practice in teaching and learning within and beyond their school or discipline.

#### Criteria for evaluating the scholarly teacher

In addition to the achievements demonstrated by a skilled and collegial teacher, the scholarly teacher is distinguished by their contribution to and application of pedagogical **knowledge**, through meeting some or all of the following criteria:

- demonstrates an extensive knowledge of a range of pedagogical approaches and a critical approach to evaluating the evidence and its relevance to their teaching
- advances pedagogical knowledge through theoretical, empirical and/or translational research within their field of expertise
- demonstrates an appropriate and conscientious application of evidence-informed approaches to advance student learning within their own teaching practice
- inspires, informs and supports peers, within and beyond their own institution, to adopt evidence-informed approaches to their teaching practice
- is recognised for their expertise in teaching and learning, supporting the development of active communities of practice within and beyond their institution

#### Range of influence of the scholarly teacher

In addition to students taught and tutored and peer academics, the communities influenced by the scholarly teacher include the national and international pedagogical communities within their disciplinary area and/or specific pedagogical fields of interest. In addition to the learning, engagement and participation of the students taught and tutored, teaching achievement would be demonstrated by the candidate's impact on the pedagogical knowledge within and beyond their own institution, including its influence on teaching practice.

### 3.4 Institutional leader in teaching and learning

#### Definition of the institutional leader in teaching and learning

The institutional leader in teaching and learning plays a leadership role in improving the environment for inclusion and excellence in teaching and learning within and beyond their institution, through, for example, curriculum renewal and redesign, strategic partnerships outside the institution, the development of systems of support for staff/students or quality assurance (QA) review at an institutional level. It should be noted that this level is not designed to recognise and reward the managerial responsibilities of the candidate, but rather their legacy and impact on educational quality across and beyond the institution regardless of the position that they hold.

#### Criteria for evaluating the institutional leader in teaching and learning

In addition to the achievements demonstrated by a skilled and collegial teacher, promotion candidates demonstrate institutional **leadership** in teaching and learning through their ability to lead processes of change, review, innovation and development across the university teaching and learning environment. The successful candidate would fulfil one or more of the following criteria:

- demonstrates leadership with respect to advancing an inclusive and supportive culture of excellence in teaching and learning across the institution
- plays a leading role in driving educational innovation, reform and/or support, within or outside the curriculum, that has a sustained and positive impact on student learning and/or engagement
- leads the development, management and review of school and institutional teaching and learning strategies, including major QA and accreditation processes
- strengthens and contributes to national dialogues in teaching and learning, advancing cooperation and partnership outside their institution and informing practice elsewhere

#### Range of influence of the institutional leader in teaching and learning

The communities influenced by the institutional leader in teaching and learning are staff and students across their university as well as other connected stakeholders in higher education, such as schools, prospective students, graduate employers and strategic institutional partners. Teaching achievement would be demonstrated by the impact that the candidate has had across and beyond their institution, on attitudes of staff and students, institutional educational policies, support structures and approaches, student learning outcomes and the institutional learning environment.

### 3.5 National and global leader in teaching and learning

#### Definition of the national and global leader in teaching and learning

The national and global leader in teaching and learning has achieved national and global influence and leadership in the advancement of teaching and learning in higher education through their contribution to educational practice (including improving educational dialogue and partnership or driving multi-institutional educational reform) and/or their impact on pedagogical knowledge. It is likely that teaching and learning would be the major academic focus of the successful candidate.

#### Criteria for evaluating the national and global leader in teaching and learning

In addition to the capabilities consistent with a scholarly teacher and/or an institutional leader in teaching and learning, a successful promotion candidate would demonstrate national and/or international **influence** in the advancement of teaching and learning through meeting one or more of the following criteria:

- demonstrates sustained, high-impact contribution to pedagogical research and knowledge, with impact across their field of expertise
- shapes and informs teaching and learning strategies at institutional, national and international levels
- is recognised as a national and/or international authority in teaching and learning, influencing practice across their field of expertise and/or the higher education sector
- takes a leadership role in advancing sector-wide collaboration and educational reform at a national and/or international level

#### Range of influence of the national and global leader in teaching and learning

The communities influenced by the national and global leader in teaching and learning would extend across the higher education sector at a national and/or global level. Teaching achievement would be demonstrated by the candidate's reach and influence in national and international teaching and learning, within and/or beyond their own discipline.



Image courtesy of the University of Auckland

## Section 4

# Evidencing teaching achievement

This section identifies and describes the different forms of evidence that could be used by a promotion candidate to demonstrate teaching achievement at each level of the template. It provides details of five evidence domains, along with case studies taken from across the world, illustrating how such evidence has been used in successful promotion cases.

As noted in the introduction to this document, the template comprises three elements: (i) a specification of levels of teaching achievement, (ii) promotion criteria that underpin each level, and (iii) the evidence that candidates can use to demonstrate that they have met the relevant criteria. This section focuses on the third element, the evidence to demonstrate achievement.

There is a range of different forms of evidence that could 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, as well as its impact.
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. Examples might include a description of teaching responsibilities, training/certification in teaching and learning, external examination responsibilities or the role played in leading or supporting institutional QA processes.



3. **Indirect measures of student learning:** evidence that has been shown to correlate with student learning, while not measuring it directly. Such data typically relate either to institutional measures of student progression (eg pass rates, attrition rates) or to the perspectives of students and other stakeholders (eg unsolicited student feedback, student evaluation scores, employer feedback).
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 (eg 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 template levels.

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

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

1: Context

2: Levels

3: Criteria

4: Evidence

5: Summary

Image courtesy of the University of Auckland



The following points may help to guide promotion candidates as they identify suitable sources of evidence for inclusion in promotion cases:

- Teaching achievement can be seen to rest on two key components: approach and impact. **Approach** can be viewed as the input, or the prerequisite, for achievement, and is typically demonstrated by a candidate's self-assessment and, at early career stages, their professional activities (ie the first two columns of Table 1). A candidate's **impact** can be viewed as the output for achievement and is captured through a wider range of evidence, including professional activities at more advanced levels, direct and indirect measures of student learning and peer assessment (ie the final three columns of Table 1). Where possible, candidates should present evidence from at least one approach domain and at least one impact domain within promotion cases.
- The blend of evidence sources used by promotion candidates will vary considerably, depending upon the nature and focus of their teaching contribution. However, it would be expected that self-assessment will play a more prominent role at the 'effective teacher' and 'skilled and collegial teacher' levels, while peer assessment is likely to play a more prominent role at the 'national/global leader' level.

- The framework excludes evidence which would typically be included as part of the institutional 'contribution' or 'service' portion of a promotion case. So, for example, contributions to increasing participation/diversity in higher education or improving the public understanding of the discipline have not been included in Table 1. If desired, however, such evidence could be incorporated into the domains of 'professional activities', indirect measures of student learning and peer evaluation.
- Depending on the institutional promotion processes, candidates may wish to compile all of their evidence of teaching achievement within a 'teaching portfolio'. The foundation of the teaching portfolio is a self-reflective narrative (see Section 4.1) where candidates can discuss their teaching approach and describe its impact, thereby contextualising all other teaching-related evidence in the promotion case.

The following subsections (Sections 4.1-4.5) go on to describe each of the five evidence domains in more detail, with illustrative examples used where appropriate to demonstrate how such information can be collected and showcased within a promotion case. Wherever possible, the references and tools provided are taken from open-source literature.

Image courtesy of the University of Twente



## 4.1 Self-assessment

Self-reflective statements – prepared by the candidate to describe and reflect upon their personal approach to teaching – are playing an increasingly prominent role in academic promotion in universities across the world. Self-assessment can be a particularly important source of evidence for early career academics, where candidates may not yet be in a position to collect broader evidence of their educational impact.

Table 1 suggests a likely focus for self-reflective statements for each of the levels of teaching achievement defined in the template. The sphere of focus of the candidate’s self-reflection increases with each progressive level of the template, moving from the students taught and tutored (at the ‘effective teacher’ level) to the national and global higher education community (at the ‘national and global leader in teaching and learning’ level).

The content of self-reflective statements will vary by institution context and individual role. However, many of the experts consulted for this study recommended that self-reflective narratives which focused on teaching and learning in the classroom (ie those prepared by candidates at the ‘effective teacher’ level) should adopt a broad structure similar to that proposed by Nancy Chism (1998), and comprise four key components:

1. **Goals for student learning:** a description of the candidate’s overall goals for their teaching, including the desired learning outcomes (knowledge, skills and attitudes) for their students and an assessment of how this varies by course, level and context.
2. **Personal teaching philosophy:** a discussion of the teaching strategies employed by the candidate to achieve these goals and how the approaches adopted reflect their understanding of how learning occurs.
3. **Approach to assessment and evaluation:** a rationale for why particular assessment/ evaluation processes were adopted, in light of the candidate’s teaching philosophy and the intended learning outcomes of their course/s.
4. **Plans for development in the future:** a discussion of how and why the candidate’s teaching has developed over time, with relevant evidence as appropriate, along with a statement of their goals for the future.

Successful promotion candidates and pedagogical experts interviewed as part of this study offered a number of suggestions to guide preparation of a self-reflective personal statement:

- Candidates often report that reviewing other self-reflective statements generated within their own discipline and institution is an important first step in reflecting on their own teaching and preparing their own statement. Candidates should therefore consider asking for good practice examples from their university teaching and learning office (or equivalent) that had been prepared for successful promotion cases.
- The statement should begin with contextual information about the candidate’s teaching responsibilities as well as the disciplinary and institutional context.
- Statements should be clearly structured, so that the focus of each section is immediately obvious to the reader.
- When articulating their teaching approach, candidates should draw on real examples from their own experience. If prepared as part of a teaching portfolio, the self-reflective statement should contextualise all other evidence of teaching achievement, using these data to demonstrate impact and substantiate the narrative.
- Candidates should share and discuss their statement with others from within and beyond their own discipline to gather feedback before submission.

### CASE STUDY

## 1 Dr Constanza Miranda, Pontifical Catholic University of Chile



In 2013, Dr Constanza Miranda successfully applied for an associate professorship in the mechanical engineering department at the Pontifical Catholic University of Chile (PUC). Returning to Chile from postgraduate study in the US, she brought extensive experience of delivering hands-on multidisciplinary design experiences for both engineering students and industry professionals.

Her application for appointment at PUC included a teaching portfolio in which Dr Miranda described her approach to teaching design and reflected on how and why this had changed in recent years. In particular, she highlighted her growing desire to offer alternatives to the conventional “master and apprentice” model of design teaching, where the pedagogic approach was highly dependent on the personality of the instructor and often left students frustrated by “the lack of a formal rubric, not knowing how their learning outcomes or how their performance will be measured”.

Influenced both by the teaching certificate programme she had taken during her doctoral research at North Carolina State University and her interactions with the design education community, she described how she had started to develop “a more systematic and goal-oriented learning model that can be replicated successfully by different professors”. Drawing on materials from her recent design courses and on examples of student feedback she had received, Dr Miranda highlighted the benefits of this shift in teaching approach. She noted in particular how it had helped to provide students with a clear framework through which to structure their learning experiences without constraining “the space for creativity and self-decision to happen”.



## 4.2 Professional activities

The second evidence domain included in the template (Table 1) relates to the candidate's professional activities in teaching and learning. Although descriptions of a candidate's professional activities do not necessarily offer insight into educational quality or impact, they can provide a useful indicator of the candidate's commitment to teaching and learning, as well as their particular areas of interest and/or expertise.

As reflected in the following boxed sections, professional activities at the 'effective' and 'skilled and collegial' teacher levels typically provide evidence of the nature and scale of the candidate's teaching responsibilities as well as their pedagogical training history. With progression beyond these levels, professional activities can also provide evidence of a candidate's broader educational influence and esteem.

### Effective teacher

At the 'effective teacher' level, the description of professional activities helps to characterise the nature and scale of the candidate's teaching responsibilities in areas such as student recruitment, extracurricular activities or course design. It also provides contextual information about the candidate's pedagogical training, as well as their educational interests and contributions outside of their school. Examples of professional activities may include:

- details of courses taught, including number of courses, student numbers, course assessment responsibilities etc
- course materials, as appropriate: syllabus, learning outcomes, assessment protocols, assignments, videos of in-class activities etc
- details of involvement with non-curricular student support activities, such as tutoring or providing support for extracurricular activities
- details of pedagogical training and in-service professional development
- participation in departmental teaching and learning committees or groups.

Please see Case study 2 for an example.

### CASE STUDY

## 2 Dr Gregory Offer, Imperial College London



Building upon his experience as a research fellow and six years of postdoctoral study, Dr Gregory Offer was successfully appointed to a lectureship at Imperial College London in 2013. Although his application was primarily focused on his research achievements in the field of electrochemical devices, Dr Offer also included evidence of his educational achievements by providing a description of his teaching and learning activities.

Dr Offer's application included details of his teaching and student supervision responsibilities to date. It also provided a description of a multidisciplinary student project that he co-established and had been co-leading for seven years. Imperial Racing Green (IRG) is a curricular project that challenges students to 'design, build and race zero emission or low carbon racing cars', involving around 100 undergraduates each year from across the school of engineering. Within his promotion case, Dr Offer described his role in both initiating and leading this innovative teaching project, including "helping manage the day-to-day running of the project with the students; setting up effective student and academic management structures to engage academics from multiple departments in the faculty of engineering; obtaining funding from both internal and external sources; and supervising a number of students in both the technical and management aspects of their projects". Following his appointment, Dr Offer noted the important role played by IRG in raising his profile within the department and helping to distinguish his appointment case.

### Skilled and collegial teacher

In addition to the types of activities expected of the 'effective teacher', the professional activities of a 'skilled and collegial teacher' would also characterise their contribution to supporting a culture of teaching excellence within and beyond their school. Examples may include:

- details of mentorship of departmental teaching staff
- the role played in leading delivery of an extracurricular activity
- participation in programmes of educational change/development
- external examination responsibilities at peer institutions
- course management and quality assurance responsibilities.



### Scholarly teacher

In addition to the types of activities expected of the 'skilled and collegial teacher', the candidate's professional activities would describe their contributions to building knowledge in teaching and learning beyond their institution, demonstrating esteem, influence and/or particular interests or skills. Examples may include:

- membership of pedagogical research groups at a national/institutional level
- acting as an invited speaker at teaching and learning events
- holding an educational leadership position within a professional body
- visiting honorary positions held outside their institution
- acting as a member of the editorial board of a discipline-based education journal
- organising conferences/workshops in teaching and learning.

### Institutional leader in teaching and learning

In addition to the types of activities expected of the 'skilled and collegial teacher', candidates would describe professional activities that demonstrate a strategic role in nurturing an environment for excellence in teaching and learning within their institution, as well as activities and roles that reflect their status and influence beyond the institution. Examples of professional activities may include:

- the role played in delivering new programmes of student mentorship and support
- the role played in leading a systemic programme of curricular change or the development and delivery of innovative learning tools (such as through e-learning), at a departmental, school or institutional level
- the role played in enhancing professional development programmes in teaching and learning
- leadership in institutional QA, accreditation or teaching and learning strategy
- invitations to conduct teaching and learning reviews at peer institutions.

Please see Case study 3 for an example.

### CASE STUDY

## 3 Hanne Jarmer, Technical University of Denmark (DTU)



Associate Professor Hanne Jarmer was appointed to head of the department of systems biology at DTU in 2014. She brought a research background in advanced bioinformatics and a history of systemic educational reform and leadership in teaching and learning at both departmental and institutional levels.

Within her case for appointment to department head, Dr Jarmer listed a number of her professional activities in teaching and learning, including her teaching responsibilities and activities as head of education for her department. However, she acknowledged that the educational activity likely to have had the most profoundly positive impact on her promotion case was her leadership role in "bringing the Coursera [online learning] platform to DTU - I went above the department. I wore the DTU hat rather than only the systems biology hat. It was something that benefited the whole university. I contacted the Coursera founders and argued for the value of DTU on the platform and they invited us in". Dr Jarmer's case listed her role in establishing the university's Coursera agreement, making way for the first Coursera course in Scandinavia, as well as supporting its delivery and joining the Coursera-DTU steering committee.

### National and global leader in teaching and learning

In addition to the types of professional activities expected of the 'scholarly teacher' and/or the 'institutional leader in teaching and learning', the candidate would provide details of activities and roles that imply national and/or international influence and status. Examples may include:

- participation in government consultations/ select committees
- external roles held supporting QA processes at other universities or national bodies
- editorship of an educational journal
- plenary invitations at key national/global teaching and learning events
- the role played in leading cross-sector educational partnerships and projects
- the role played in reviewing major multi-institutional collaborations in university teaching and learning.



### 4.3 Indirect measures of student learning and participation

Indirect measures are indicators that have been shown to be associated with student learning. In other words, while direct measures provide explicit evidence of student learning, indirect measures provide evidence that suggests or implies that student learning has taken place. Most indirect measures capture evidence at a single point in time and therefore do not necessarily offer insight into the value added by the education or intervention. However, they have the advantage of being relatively straightforward to collect in a standardised form that can enable comparisons across and between cohorts.

Most universities across the world routinely collect indirect measures of student learning such as:

- student attrition/retention rates
- student satisfaction in relation to specific courses, collected via survey and written feedback
- pass rates and degree classifications
- employer assessment of graduate capabilities, collected via survey
- post-graduation employment rates and salary scales
- graduate feedback about their educational experience, collected via survey.

Where disaggregated at the course or programme level, these data can be used to support a candidate's promotion case, as illustrated in Case study 4. However, it is often difficult to directly attribute positive changes in such institutional measures to one particular individual, particularly where they do not hold a leadership position in a course or programme.

Examples of other indirect measures of student learning that could be collected by promotion candidates themselves (with or without assistance from their institution) are listed in the table below. Where possible, links to relevant measurement tools are provided.

#### Alternative student evaluation surveys

Institutional student evaluation questionnaires are widely used by universities across the world as key indicators of academic teaching achievement. However, many such questionnaires have been designed in house and some are reported to "lack any evidence of reliability or validity, include variables known not to be linked to student performance, and do not distinguish well or consistently between teachers and courses" (Gibbs, 2014). Summarised below are details of two alternative and highly regarded survey instruments that could be used by candidates to collect student evaluations in relation to a specific programme, course or activity:

- Student Evaluation of Educational Quality (SEEQ) captures student evaluations of 35 aspects of effective teaching in relation to their course or teacher. A version of the SEEQ questionnaire is reproduced in the appendices of Nash (2012).
- Student Assessment of Learning Gains (SALG) is a survey tool which, according to its authors (Seymour et al, 2000), "avoids critiques of the teacher, the teacher's performance, and of teaching methods that are unrelated to student estimates of what they have gained from them", focusing instead on "the learning gains that students perceive they have made" in terms of the learning outcomes of the course or activity. SALG can be accessed via <http://www.salgsite.org>.

#### CASE STUDY

## 4

Professor Tom Joyce,  
Newcastle University, UK



In 2011, Dr Tom Joyce submitted a successful case for promotion to full professorship at Newcastle University in the UK, on the basis of a balanced teaching and research portfolio. His evidence for research achievement included

high-impact publications, research grant income and distinguished awards in his research field of orthopaedic engineering. Dr Joyce's teaching achievements were demonstrated by a blend of two sources:

1. peer-reviewed evidence (such as institutional and national teaching awards, peer-reviewed pedagogical articles and the inclusion of his teaching activities in published case studies of good practice) as indicators of scholarly teaching and pedagogical influence beyond his institution
2. details of a major curricular innovation with associated improvements in student progression following its implementation, as indirect measures of student learning, details for which are given below.

One element of his promotion case focused on the design and impact of *Engineering Teams*, a scheme implemented and evaluated by Dr Joyce in response to concerns about attrition rates among first-year undergraduate students in the engineering school.

*Engineering Teams* sought to develop a culture of peer learning and support across the student cohort during the first year of study, thereby improving engagement, the quality of learning, and (ultimately) student progression. As Dr Joyce explained: "We put [all incoming] students into pre-assigned teams of five and we gave them tasks to do over the course of their first year which meant that they had to work together and from this they helped each other to learn and developed friendships which often lasted for the whole of their degrees."

Using both survey and focus-group data, he conducted (i) an analysis of the design and delivery of *Engineering Teams*, identifying a number of constraints to the scheme that were subsequently improved upon during the years that followed, and (ii) a review of the impact of *Engineering Teams* on the student cohort. A major indicator of the impact of *Engineering Teams*, as highlighted in the promotion case, was the significant improvement in student progression rates following its introduction: from 83% to 93%. As Dr Joyce noted: "Going from a situation where we were 'losing' almost 1 in 5 students to one in which we were only 'losing' 1 in 11 conveyed a very strong message I thought, particularly when there was no additional financial expenditure by the school. These numbers were also backed up by positive student feedback which we gathered over the first year and at the beginning of second year."

### Self-reported student learning gains

Self-efficacy, or a student's self-belief in their own abilities, has been shown to be a strong predictor of student learning and motivation (Zimmerman, 2000). Pre/post survey data that demonstrate improvements in student self-efficacy can be used within a promotion case to demonstrate, for example, the impact of a course or new pedagogy. A generic self-efficacy questionnaire (the Motivated Strategies for Learning Questionnaire) is available from Pintrich and DeGroot (1990). Targeted self-efficacy questionnaires are also available which often focus on specific skills and attitudes, such as entrepreneurship (Lucas, 2014), or within specific disciplines, such as engineering design (Carberry et al, 2010).

### Unsolicited/solicited student feedback

As a complement to student evaluation survey data, solicited or unsolicited feedback from students/ graduates – for example an email from a student describing the positive impact on their learning, progress and/or engagement made by the candidate – can be used to support the teaching element of promotion cases.

### Student prizes and achievements

Indirect evidence of student learning can also include the achievements of students and graduates. Although, in most cases, it is very difficult to attribute such achievements to the learning opportunities and/or support provided by a particular academic, some exceptions may exist. For example, a promotion candidate could include details of the number of student teams from an entrepreneurship course who have since established a successful start-up business (see Case study 7, Section 4.5).

### Indirect measures relating to programme/institutional impact

Other indirect measures can be used to demonstrate both programme- and institutional-level impact in teaching and learning. Examples could include:

- Assessments by industry partners and/or graduate employers, such as (i) surveys capturing the perceived capabilities of graduates from particular programmes/universities compared to peer institution or previous generations of graduates, or (ii) qualitative assessments of student performance on industry-linked curricular experiences or placements.
- Student engagement data, such as that captured through the US National Survey of Student Engagement (<http://nsse.indiana.edu>).

Image courtesy of the University of Auckland



## 4.4 Direct measures of student learning

Direct measures of student learning capture the knowledge/skills/attitudes of the student cohort, enabling evaluation of student performance, either against a defined benchmark or through changes over time. More specifically, they “provide evidence of whether or not a student has command of a specific subject or content area, can perform a certain task, exhibits a particular skill, demonstrates a certain quality in his or her work ... or holds a particular value” (MSCHE, 2007). It should be noted that, while direct measures can provide robust evidence of teaching achievement within particular courses or programmes, they are typically resource-intensive, requiring time and expertise to design and collect. Such measures are therefore not routinely used within promotion cases.

Direct measures of student learning tend to fall into two categories:

1. those which assess learning over time, often using before/after testing of student knowledge/abilities
2. those which assess learning at a single point in time, typically through comparisons against a control group, norm or benchmark.

Outlined below are some examples of each type of direct measure that could be collected and presented as part of an academic promotion case. Further examples are available at Suskie (2010), Frye et al (2007) and MSCHE (2007).

### Direct measures of learning over time

The direct measures of learning over time likely to be most appropriate for inclusion in a promotion case are those involving pre/post testing of students, for example, on the basis of their conceptual understanding. One well-documented example of such pre/post testing is from the Massachusetts Institute of Technology (MIT), where a new active learning approach was adopted within an electromagnetics course with the aim of improving students' conceptual understanding and reducing failure rates. Conceptual questions from standardised tests were administered to students both before and after the new course, and the results were compared to control group data from students studying under the previous, more traditional, course delivery style. The survey outcomes demonstrated that the new course delivered significantly improved conceptual understanding among students (Dori and Belcher 2005). The survey questionnaire used in this example can be accessed from Dori et al (2007).

Concept tests, such as the Force Concept Inventory (Hestenes and Halloun, 1995) – available from Mazur (1997) – are widely used in engineering and physics schools across the world to evaluate students' conceptual understanding. Sample concept tests related to a wide range of science, engineering and mathematics topics are available from:

- Field-tested Learning Assessment Guide (FLAG), which can be accessed through <http://www.wcer.wisc.edu/archive/cl1/flag/default.asp>
- The Assessment Instruments Information Page, hosted by Professor Robert Beichner at North Carolina State University, which can be accessed through <http://www.ncsu.edu/per/TestInfo.html>

An alternative direct measure of student learning is the student learning journal, in which students are asked to reflect on the course and their learning on a weekly basis. An approach to designing and evaluating student learning journals is provided in Shiel and Jones (2003).

CASE  
STUDY5 Professor Craig Forest,  
Georgia Institute of  
Technology, US

In 2015, Dr Forest submitted a successful case for promotion to associate professorship at Georgia Tech. Of the five 'noteworthy accomplishments' listed in his application, four related to research achievements within his field of biomolecular science and one related to achievements in education. Dr Forest noted that, as an academic following a tenure track in a research-led institution, the decision to include an educational component in his promotion case was carefully considered.

A wide range of evidence sources was used to demonstrate Dr Forest's institutional impact and influence in teaching and learning, including:

- **Professional activities:** the educational portion of the promotion case centred on a description of three activities: (i) the co-foundation of the 'InVenture Prize', a university invention competition, (ii) the establishment of the 'Invention Studio', an open-access space for student creativity, innovation and design, and (iii) the redesign of an engineering capstone design course.
- **Peer assessments:** including national press coverage of the educational activities developed by Dr Forest, a peer-reviewed pedagogical publication and details of the funds raised for the establishment of the 'Invention Studio'.
- **Indirect measures of student learning:** including estimates of the number of companies founded by students engaged in the entrepreneurial and innovation activities established by Dr Forest.
- **Direct measures of student learning:** including an evaluation of the quality of student projects from the multidisciplinary final year design course established by Dr Forest, as described over the page.

Building on an existing capstone design experience within the engineering school - where teams of students from a single discipline were tasked to solve authentic industry problems - Dr Forest led the creation of a new multidisciplinary capstone experience, bringing together mechanical and biomedical engineering students to work together on these real-world problems. Based on the scores allocated by a judging panel of industry partners, an evaluation was conducted of the quality of student projects developed by these multidisciplinary teams compared to that of their mono-disciplinary peers. The evaluation (Hotaling et al, 2012) concluded that "the [multidisciplinary] teams' holistic performance in innovation, utility, analysis, proof of concept, and communications skills was superior to that of the mono-disciplinary counterparts".

### Direct measures of learning at a single point in time

Suitable techniques for measuring learning at a single point in time include:

- student performance in institutional examinations and assignments can be used, in particular, to demonstrate the positive impact of pedagogical or curricular change as part of a promotion case
- products/outputs of a course or programme delivered by students, such as final-year projects, conceptual maps or oral exams (see Case study 5)
- student performance in standardised tests, capturing both generic learning outcomes through tools such as the Collegiate Learning Assessment (Klein et al, 2007) or capturing discipline-specific capabilities through tools such as AHELO (OECD, 2009). Although such tools are primarily designed for comparisons between institutions and countries, such data could also be disaggregated by programme to support a candidate's case for promotion.

The validity of these techniques rests on the assessment instrument capturing the relevant learning outcomes. Most also require a benchmark against which to compare the data collected for the student cohort, such as national average scores or performance of students in control groups.

## 4.5 Peer review and recognition

Peer review is the primary means by which research achievement is evaluated during academic promotion, based on evidence - such as journal articles and research grant income - that has already been subject to critical external review. Peer review plays a similarly important role in the evaluation of teaching achievement; the key difference is that the peer review often takes place *as part of* rather than *prior to* the promotion process.

Peer-assessed evidence of teaching achievement can take a variety of forms. At its broadest level, review can be conducted of an entire teaching portfolio, including all evidence of teaching achievement submitted by the candidate. For example, all promotion candidates at Chalmers University of Technology (Sweden) submit a teaching portfolio that is reviewed by at least one external pedagogical expert. Outside these broad whole-of-case assessments, peer review typically relates to one of three aspects of the candidate's teaching achievement, as summarised below.



CASE STUDY

6 Dr Jonathan Adler, Olin College of Engineering, US

1. Impact on teaching and learning within the candidate's institution

Examples of peer assessments that relate to a candidate's impact on teaching and learning within their institution include:

- Peer observation of teaching: a small but increasing number of universities across the world are incorporating mandatory peer review of teaching into the academic promotion process. Resources available to inform and support peer review of teaching during the promotion process include a study, commissioned by the Australian Office for Learning and Teaching (Crisp et al, 2009), which offers protocol documents<sup>2</sup> that can be adapted to suit institutional contexts and priorities.
- Trial lecture: in a number of countries, for example Finland and Sweden, candidates seeking promotion to selected levels are often required to deliver a trial lecture. Although the content of these lectures is typically focused on a candidate's research interests, formal and informal reviews are often solicited from department staff and students in relation to their communication skills and delivery style.
- Assessments and letters of reference: Assessments or letters of reference can be requested from a wide range of individuals, including students, alumni, teaching mentors, teaching mentees, course leaders, industry partners, external course collaborators and departmental/institutional leaders. These assessments can provide significant insight into the approach, impact and range of influence of the candidate relating to activities within the classroom, outside the curriculum and across the university's teaching and learning environment (see Case study 6).



In his 2015 promotion case to associate professor at Olin College of Engineering (US), Dr Jonathan Adler included a letter from a former student who had transferred out of the university to complete his studies elsewhere. The letter described the significance of the counselling role Dr Adler played in supporting the student's reappraisal of his interests, motivations and career ambitions.

The process of reappraisal led to the student deciding to leave and pursue a course of study at a university that, unlike Olin College, was not engineering focused. Dr Adler explained: "I imagine it is quite unusual to include students who transfer out of one's university in one's promotion materials, as these students are so often seen as failures of the institution, given the importance of student retention.

"But at Olin, one of the key domains in which faculty are assessed is 'developing students.' I saw this as a clear example of my work to help a student develop to his full potential, even though it involved leaving Olin to do so. The student transferred to a highly selective liberal arts college and is now working on a PhD at Harvard, so I look back on our advising sessions over the course of his one year at Olin as a success and wanted to include this perspective in my promotion dossier."



Image courtesy of the Pontifical Catholic University of Chile

<sup>2</sup> Peer review of Teaching for Promotion Purposes, University of Adelaide: all resources available from <http://www.adelaide.edu.au/teaching-projects/peerreview/>

## 2. Impact and influence beyond the candidate's institution

A wide range of peer-reviewed evidence can be used to demonstrate impact beyond the candidate's institution, in both pedagogical knowledge and educational practice, including:

- peer-reviewed pedagogical journal and conference papers
- pedagogical research grants (in national contexts where such funding is available)
- funds raised towards educational activities, projects or spaces
- external reviews, case studies and/or unstructured feedback from institutional visitors, demonstrating the recognition and influence of the candidate's educational ideas and/or practices
- widely used textbooks and e-learning materials
- letters of reference from peer institutions, professional bodies, leaders of relevant teaching and learning communities, research partners and external collaborators in courses, programmes or teaching and learning projects.

## 3. Indicators of esteem and recognition

Other indicators of esteem and recognition can offer important evidence of the candidate's teaching achievement both within and beyond their institution (as outlined in Case study 7). Examples may include:

- prizes/awards in teaching and learning at institutional or national level
- fellowships and membership of teaching and learning academics
- press coverage of the candidate's educational ideas or activities.

### CASE STUDY

## 7

Elena Rodriguez-Falcon,  
University of Sheffield, UK



In 2012, Dr Elena Rodriguez-Falcon was promoted to full professorship at the University of Sheffield on the basis of contributions to teaching and learning, particularly in the field of enterprise education. Unusually for a UK research-led

institution, the promotion case focused primarily on impact and leadership in educational practice, rather than pedagogical scholarship.

Dr Rodriguez-Falcon describes her work as "scholarship in action: taking the [pedagogical] knowledge and putting it in practice in the classroom ... the outputs for scholarship are grants and publications, but the way you measure 'scholarship in practice' is through impact on the culture of the institution". Her promotion case indicated significant contribution to the institutional environment for teaching and learning through descriptions of her professional activities, such as leading significant curricular innovations/reforms in enterprise engineering, driving development of the university's enterprise strategy and co-authoring the university's *Inclusive Teaching and Learning Handbook*. The case also demonstrated broader educational influence within and beyond her institution through a diverse range of peer assessments:

- **Institutional impact and leadership:** a wide range of testimonials from across divisions, departments and hierarchy at Dr Rodriguez-Falcon's institution were used to demonstrate the breadth of her activities and their perceived impact on the university's educational culture and capacity.
- **Impact and influence beyond the institution:** (i) peer-reviewed pedagogical publications and research grants, (ii) national and international case studies of good practice that featured Dr Rodriguez-Falcon's curricular innovations, and (iii) a variety of testimonials from her professional community outside her institution, including visitors to the university who had subsequently adopted her educational ideas, "attesting to the fact that they thought that what I had done was valuable enough to be replicated at other universities."
- **Indicators of esteem and recognition:** (i) national awards, prizes and fellowships, and (ii) evidence of national media impacts, including relevant press releases and articles. In reference to the considerable national press attention generated by her educational innovations, Dr Rodriguez-Falcon noted: "this must demonstrate something of your standing in the profession. I realised that this was also evidence that I had to include."

## Section 5

# Summary

This document has presented an evidence-informed template that can be used by universities to evaluate teaching achievement during academic promotions. It has looked at the range of teaching achievements that could be rewarded, the promotion criteria and the evidence base to support a candidate's case.

Bringing these elements together, this section provides an illustrative example of how the template might be used in practice, by mapping the levels, promotion criteria and evidence sources onto an existing promotion case, taken from the University of Queensland in Australia.

### CASE STUDY

## 8

Dr Greg Birkett,  
University of Queensland, Australia



In 2014, Dr Greg Birkett was promoted to a senior lectureship on the basis of a balanced portfolio, built around his contributions to research, in the field of molecular modelling and surface chemistry, and to education. He successfully demonstrated his educational contribution in two key domains:

1. a high-quality and evidence-informed approach to teaching that demonstrated clear improvements in approach over time and yielded positive student learning outcomes
2. leadership and legacy at school level in driving curricular reform, improving student engagement and providing educational support and mentorship to academic staff.

The information and evidence included in Dr Birkett's promotion application have been mapped onto the template structure, and are outlined below:

- **Level of achievement:** Dr Birkett's institutional contribution to education, supported by the quality of his teaching delivery, indicates that his achievements correspond to the 'institutional leader in teaching and learning' level defined in the template.

- **Promotion criteria:** Dr Birkett appears to fulfil most criteria for 'institutional leader in teaching and learning', particularly those relating to educational and cultural change.

- **Evidence:** The evidence included in Dr Birkett's promotion case can be mapped onto four evidence domains in the template – with his *direct impact on students* and his *educational leadership* considered as two separate themes (Figure 5). He particularly underlined the role played by the head of school's reference in his promotion case: "when it comes to teaching, there are so many things that are not easy to measure ...but the head of school is in a position to recognise the difference I have made."

It should be noted that, although Dr Birkett held the position of chair of the school's teaching and learning committee, his promotion case was based upon his impact rather than his managerial responsibilities. As he observed: "the promotion was not about meeting a 'service' requirement [by chairing the committee], it was about what I did. It is the change that should be recognised, not the position."

Evidence domain	Evidence relating to Dr Birkett's direct impact on student learning	Evidence relating to Dr Birkett's impact on the institutional environment for teaching and learning
<b>Self-reflection</b>	<p>Within his promotional case, Dr Birkett's teaching philosophy is described to be one that is grounded in authentic project experiences, underpinned by a desire to nurture graduates equipped to solve major challenges facing society. He goes on to describe and reflect upon how his teaching approach has developed over time, largely in response to the available evidence of student performance and engagement as well as evidence from the educational research literature. In one of the examples included in his promotion case, Dr Birkett describes how he was compelled to radically revise the structure and approach of one of his courses in response to disappointing examination results. Drawing inspiration from an influential pedagogical text (Ambrose et al, 2010), the course was redesigned according to a flipped classroom model, where content was delivered to students via videos to be watched prior to classes, and contact time was devoted to a "mixture of active learning activities and student work". Following the implementation of these changes by Dr Birkett, examination results and student evaluation scores relating to the course "dramatically improved".</p>	<p>Dr Birkett describes his educational leadership approach as one that responds directly to "the things that are most important for our students". His reform activities at a school-wide level, therefore primarily focused on three strategic priorities for students studying in the school:</p> <ol style="list-style-type: none"> <li><b>to maximise their career opportunities:</b> in response, Dr Birkett dramatically increased the curricular focus on industrial visits and authentic real-world problem experiences</li> <li><b>to have an enjoyable experience:</b> in response, Dr Birkett gave particular attention to establishing and retaining informal student learning spaces, designed to support team-based project work and nurture informal social communities across the student body</li> <li><b>to develop their professional capabilities:</b> in response, Dr Birkett led the development of a new integrated bachelors/masters for the school, which includes a six-month industry placement.</li> </ol> <p>In order to deliver the outcomes listed above, Dr Birkett also described his leadership activities to nurture a school "environment where teaching excellence and innovation are supported" through a focus on staff mentorship.</p>
<b>Professional activities</b>	<p>Activities listed or described in the promotion case included:</p> <ul style="list-style-type: none"> <li>• details of mentorship and project/student supervision</li> <li>• details of support offered for extracurricular student activities</li> <li>• details of courses taught (including Dr Birkett's role in the course, contact hours, pedagogical approach, curricular innovations and intended learning outcomes).</li> </ul>	<p>Activities listed or described in the promotion case included:</p> <ul style="list-style-type: none"> <li>• details of department-wide curricular innovations and reforms driven by Dr Birkett, including the creation of a new integrated master's programme and the increased curricular focus on hands-on, industry-focused experiences</li> <li>• key responsibilities taken, such as membership of school board of studies, lead academic advisor in the school, leadership of the School QA process.</li> </ul>
<b>Indirect measures of student learning</b>	<p>Student evaluation scores for each of Dr Birkett's courses were included within the promotion case. Highlighted, in particular, were courses for which scores had increased significantly following Dr Birkett's involvement or intervention.</p>	<p>Since Dr Birkett took on his school-wide educational role: (i) school-wide student satisfaction scores increased from 63% to 75%, and (ii) school-wide student engagement scores, on the basis of a national survey, increased from 54% to 71%; these improvements were not replicated across the university.</p>
<b>Peer review</b>	<p>The peer-reviewed evidence used to demonstrate Dr Birkett's teaching quality included: (i) school-level teaching awards, (ii) the number of 'effective teacher' nominations received from students, and (iii) letters of recommendation from the associate dean and head of school.</p>	<p>The peer-reviewed evidence used to demonstrate Dr Birkett's impact on the institutional educational environment included: (i) the receipt of national funding for institutional curriculum and pedagogical development, and (ii) letters of recommendation from the associate dean and head of school.</p>

1: Context

2: Levels

3: Criteria

4: Evidence

5: Summary

**Figure 5.** Educational evidence contained in Dr Birkett's promotion case, mapped onto four of the five evidence domains in the template

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## Appendices

# Appendix A

## External reviewers

Listed below are the eleven individuals who provided feedback and advice on the draft version of the template, at the close of Phase 1 of the study. These individuals offer a range of experiences and perspectives, and include those with personal experience of reforming university promotion processes as well as experts in university teaching and learning and the evaluation of teaching achievement.

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Additional feedback was provided via the Royal Academy of Engineering, both from the Advisory Group for the study as well as the Education and Skills Committee.

# Appendix B

## Study approach

The study is being undertaken in two phases, the first of which is now completed.

**Phase 1** of the study (conducted January–August 2015) drew on international knowledge and best practice to develop a provisional evidence-informed template for the evaluation of teaching achievement. It was informed by four evidence sources:

- benchmarking of the evidence of teaching achievement requested during academic promotion to full professorship (or equivalent) at the world's top-ranked engineering universities<sup>3</sup>, involving desktop examination of promotion criteria and consultations with and feedback from representatives of many of the universities concerned
- interviews with key experts in the field of pedagogical competence, the measurement of teaching achievement and university promotion procedures
- reviews of the research literature on existing and proposed measures of teaching achievement, from within and outside higher education
- analysis and review of international good practice in the evidencing and evaluation of university teaching achievement, involving interviews with those engaged in designing, implementing and using these systems. The review included the compilation of a number of illustrative case studies of good practice at the institutional level, including Chalmers University of Technology, the National University of Singapore, and the University of Edinburgh.

On completion of the first phase of work, the draft template was reviewed by a group of carefully selected experts in teaching and learning to gather their feedback and guidance. A number of adjustments to the template's format, content and tone were made in response to this feedback. A list of the expert reviewers is provided in Appendix A.

**Phase 2** of the study was launched in September 2015, and seeks to evaluate how well the template works in practice. It will capture feedback on its design, approach and impact from a university-wide perspective and thus enable iterative improvements to be made. Participating universities have been selected from the group of institutions, identified in Phase 1 of the work, that are currently engaged in internal discussions about the potential for reshaping their promotion process.

Around 10 universities from across the world will be engaged in this phase of work, providing institutional feedback about the applicability of the template and the potential challenges likely to be faced during its implementation in practice. A subset of these universities will be piloting the template within their promotion systems.



Universities participating in Phase 2 of the study have been asked to address the following four questions:

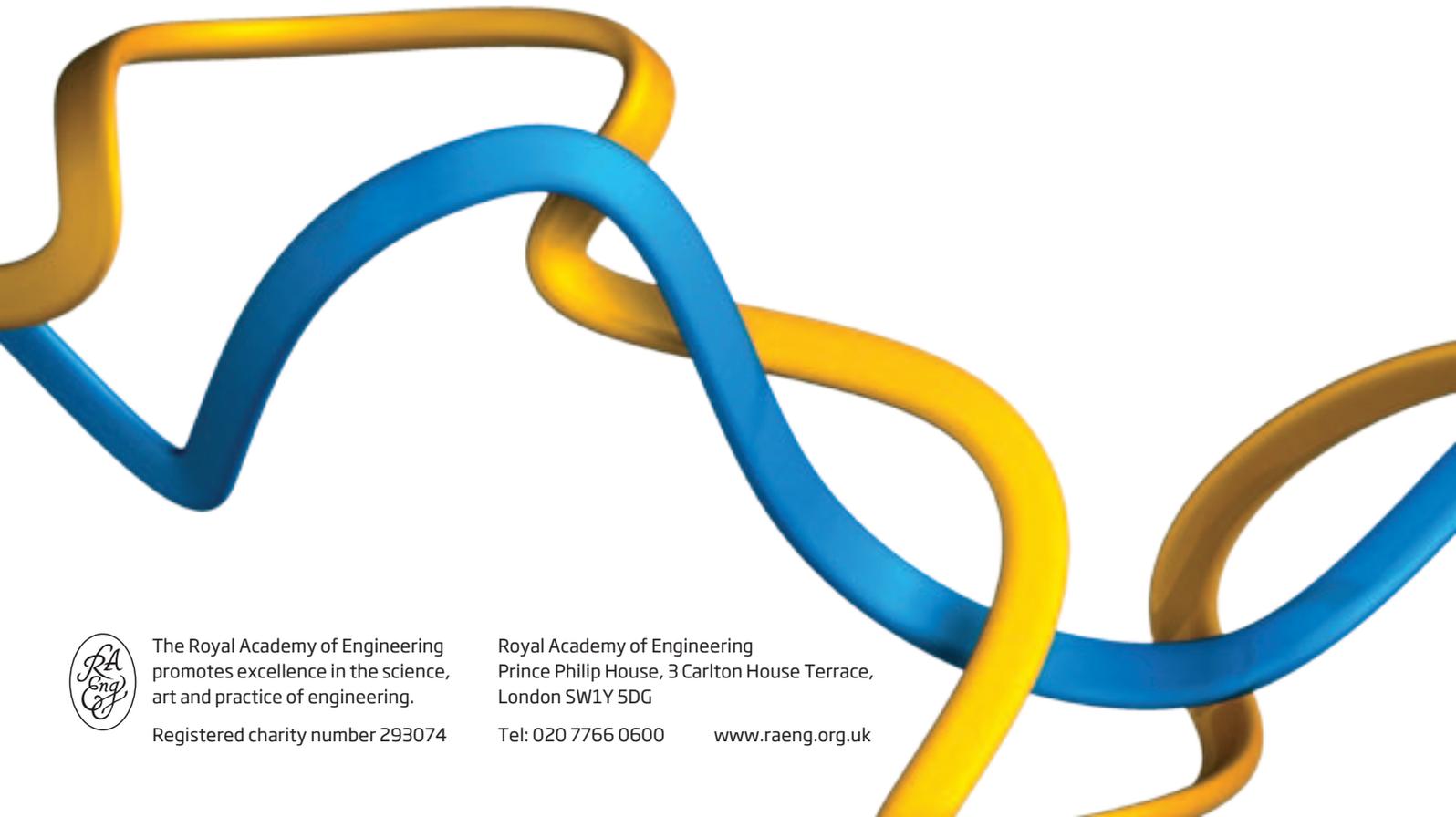
1. Does the template have the potential to improve how teaching and learning is evaluated and recognised at your institution?
2. Could the design/approach of the template be improved?
3. What advice should be given to other universities wishing to implement the template within their own promotion processes?
4. What potential exists to establish an international standard for university teaching achievements, allowing them to be portable, recognised across institutions across the world in a similar way to research achievements?

The final report from the study will be published by the Royal Academy of Engineering in late 2016, providing the updated template, the research underpinning its development and guidance for its implementation in practice.

<sup>3</sup> The universities included in this evaluation were the top 25 institutions listed in the Times Higher Education's World University Rankings for Engineering and Technology 2015–2016.



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