Teaching Excellence and Student Outcomes Framework: Subject-level consultation

The Royal Society of Chemistry's response to the Department for Education's consultation

1. To define 'subjects' in subject-level TEF, do you:

    a) **agree with using level 2 of the Common Aggregation Hierarchy as the classification system (CAH2, with 35 subjects), and if not, what other systems could be used and why?**

    Options: Yes - strongly agree   **Yes - agree**   Neither agree nor disagree   No - disagree   No - strongly disagree

    If you answered No, what other systems could be used and why?

    b) **think that specific changes or tweaks need to be made to the definition of the 35 subjects in CAH2, or to the 7 subject groups used in Model B, and if so, please explain why?**

    Options: Yes

RSC comment:
The "Physical, materials and forensic sciences" subject group is not fit for purpose owing to the diversity of courses which could be classified here. Such diversity will mean that:

- The data benchmarks will not be meaningful and provision may be wrongly/unfairly classified, at the Initial Hypothesis stage.
- Institutions which offer several course types in this category will be disadvantaged by the page limits for the submissions.

2. Do you agree that we should have a longer duration and re-application period in subject-level TEF? The focus of this question is on whether we should extend the duration. However, please provide as much detail as you can on your preferred length for the duration and/or re-application period.

    Options: Yes - strongly agree   **Yes - agree**   Neither agree nor disagree   No - disagree   No - strongly disagree

RSC Comment:
We agree that there should be a longer duration and re-application process and think that five years would be an appropriate length as it mirrors other processes and routines within Higher Education institutions. This is assuming that participation continues to be voluntary or at least have a degree of flexibility. Timescales need to bear in mind that it could be particularly burdensome if peak workload for the TEF and REF coincided.

Although we agree that in general re-application should not normally be permitted before three years, there should be a mechanism in place for institutions to request that individual subjects are reassessed on a shorter timescale if there are mitigating

circumstances, for example in the case of significant course changes and/or new provision.

3. Should subject-level TEF retain the existing key elements of the provider-level framework (including the 10 TEF criteria, the same suite of metrics, benchmarking, submissions, an independent panel assessment process and the rating system)?

> **Options:** Yes - strongly agree   Yes - agree   Neither agree nor disagree   **No - disagree**   No - strongly disagree

RSC comment:
We have concerns about the suitability of some of the TEF criteria, metrics, benchmarking and ratings system when applied to subject-level TEF.

Metrics: A nuanced approach to the metrics is vital at the subject-level as many subjects will be at the limits of statistical reliability, and simplistic interpretation risks unintended consequences of, for example, stifling innovation or course closure.

As we have pointed out in our responses to previous TEF consultations, we are concerned that the metrics do not measure teaching quality, they are simply a range of proxy indicators.

We realise that the student voice in this process is valuable, as recognised by the inclusion of NSS data. However, it must be acknowledged that the NSS data can be volatile for a number of reasons, e.g. course changes, local disruption, boycotts etc. Providers should have sufficient space in their submission to explore and address the contexts for their NSS scores.

We welcome the new approach to DHLE being implemented this year with the introduction of the Graduate Outcomes Survey, which will question graduates approximately 15 months after they graduate. This should provide a more realistic picture of graduates' career destinations after leaving Higher Education. We are however, surprised that this has not been mentioned in the consultation, as it is likely to have implications for consistency of metrics in the coming years.

We are also concerned that small cohorts and other non-reportable metrics could seriously compromise the validity of judgements, especially in Model A where subjects may not be allowed a holistic judgement.

The use of the LEO data as a supplementary metric, whilst useful as a means of judging long-term employability and graduate incomes, is still an experimental dataset with known limitations so should be used with caution.

We are also wary of the appropriateness of assessing success based on graduate salaries, when salaries are influenced by so many other factors.

Criteria and Descriptors: A number of the TEF criteria cannot always be controlled at subject level. For example in the area of Teaching Quality; *'Valuing Teaching (TQ2), Institutional culture facilitates, recognises and rewards excellent teaching'* is suitable for

provider level, but departments/faculties may not have flexibility/authority to implement more localised approaches. Similarly, in the case of the Learning Environment, Resources (LE1), the availability of physical resources such as libraries or laboratory facilities are likely to be controlled at provider rather than subject level.

Ratings: We have reservations about a process that resolves such a complex set of criteria into just three categories (Gold/Silver/Bronze) at the subject level with little additional narrative, and consequently question its value as a mechanism for informing student choice.

We strongly recommend that awarding of the Provisional rating is an option at subject-level. This would be the appropriate category for new courses where sufficient data are not yet available to make a valid judgement.

4. For the design of subject-level TEF, should the Government adopt:

- A 'by exception' approach (i.e. a form of Model A), or
- A 'bottom up' approach (i.e. a form of Model B), or
- **An alternative approach (please specify)?**

RSC comment:
There are advantages and disadvantages with both Model A and Model B.

Model A benefits from being relatively light touch and less burdensome for HEIs. Writing a submission for individual subjects is likely to be easier for university departments than having to coordinate joint responses across a large subject group as would be the case in Model B. However, if the TEF is to fulfil its purpose of informing student choice, students would probably expect that their subject had actually been assessed rather than just given a default grading based solely on metrics which, as discussed in our answer to question 3, are not necessarily true measures of teaching quality. Furthermore, departments that are given the default rating through Model A would be disengaged from the TEF process and would not benefit from the reflective process required to write a TEF submission.

An improvement to Model A would be if HEIs are given the option to ask for subjects to be assessed even if the relevant metrics were not exceptions. This would enable the institution to highlight things like good practice, where changes had been made, exceptional circumstances and small cohorts/large number of unreportable metrics.

The main advantage of Model B is that every subject is assessed and this makes it more meaningful for prospective students. Having group submissions would require coordination across the Natural Sciences, for example. This could encourage collaboration between departments and faculties. There is a risk that subjects (especially the smaller ones) could get 'lost' in the group submission or for less favourable outcomes to be hidden. In addition, as in Model A individual departments may be disengaged from the TEF process as they might not be involved.

Ultimately, neither model is quite right, but with some tweaks an acceptable solution could be found. We appreciate that the issues we have identified above are likely to be

thoroughly tested during the pilot phase before a decision is made about which one to implement. All this considered, we would recommend:

Model B with the following changes to the submissions:
- A short contextual statement is provided which includes institution and faculty level information which is relevant to all subjects being considered by the panel.
- A separate page allocation (e.g. 2/3 pages) which must be used explicitly for each subject, that can be "owned" by the relevant department(s)

5. Under Model A, do you agree with the proposed approach for identifying subjects that will be assessed, which would constitute:

a) the initial hypothesis rule for generating exceptions from the metrics?

Options: Yes - strongly agree   Yes - agree   Neither agree nor disagree   **No - disagree**   No - strongly disagree

RSC comment:
The initial hypothesis rule for generating exceptions is rather limiting. It would be preferable if split metrics and other contextual data were also considered. In addition, any subjects with small cohorts and/or a high proportion of non-reportable data, should automatically be considered an exception. Moreover, if the provider level rating changes from its initial hypothesis then the non-exception subjects will also change, but with no clear justification.

b) allowing providers to select a small number of additional subjects?

Options: Yes - strongly agree   Yes - agree   Neither agree nor disagree   No - disagree   No - strongly disagree

RSC comment:
In our opinion, Model A could only be appropriate if HEIs were given the option to select some additional subjects. The number of additional subjects should not be limited in the short term – introduction of limits without understanding the drivers behind the use of such measures could have unintended consequences.

6. In Model A, should the subject ratings influence the provider rating?

Options: Yes - strongly agree   Yes - agree   **Neither agree nor disagree**   No - disagree   No - strongly disagree

Please provide as much detail as you can on why and how this relationship should be brought about.

RSC comment:
It is easy to say that there should be a feedback loop where subject assessment has highlighted concerns or excellence which may not have been evident at a provider level. However, it is not clear how this could be achieved fairly or effectively within the constraints of the Model A process.

7. In Model B, do you agree with the method for how the subject ratings inform the provider-level rating?

      Options: Yes - strongly agree   **Yes - agree**   Neither agree nor disagree   No - disagree   No - strongly disagree

      You may wish to comment on the method for calculating the subject-based initial hypothesis, as well as how this is used in the assessment process. We also welcome alternative approaches that do not use the subject-based initial hypothesis.

RSC comment:
This is a cautious yes. We strongly recommend that the mechanism for calculating the subject-based initial hypothesis is thoroughly tested during the pilots.

8. Do you agree that grade inflation should only apply in the provider-level metrics?

      Options: Yes - strongly agree   **Yes - agree**   Neither agree nor disagree   No - disagree   No - strongly disagree

RSC comment:
The value and validity of the measure needs to be proved before its use is extended. We are concerned that early application at a subject level may have unintended consequences for student outcomes.

9. What are your views on how we are approaching potential differences in the distribution of subject ratings?

      You may wish to comment on our approach to very high and low absolute values, clustered metrics and regulation by Professional, Statutory and Regulatory Bodies (PSRBs).

RSC comment:
We do not have an opinion about this yet, as we are waiting to see what happens with the pilots.

10. To address the issue of non-reportable metrics:

      a) do you agree with the proposed approach?

      Options: Yes - strongly agree   Yes - agree   Neither agree nor disagree   **No - disagree**   No - strongly disagree

RSC comment:
We appreciate the need for guidance on the use of non-reportable metrics at a subject-level. However, we recommend that more flexibility may be required – for example allowing a longer subject-specific submission in the Model B structure – see our recommendation in Q4.

For some subjects/providers it will always be very difficult to present sufficient metrics owing to their size – these providers may be excluded from TEF if no assessment is possible owing to metrics.

> **b) when assessment occurs, do you prefer that assessors:**
>   • rely on group metrics alongside any reportable subject-level metrics?
>   • rely on provider metrics alongside any reportable subject-level metrics?
>   **• follow an alternative approach (please specify)?**

RSC: We recommend that in exceptional circumstances providers are allowed some flexibility as to which would be the most appropriate metrics to use – depending on the subjects being considered. For example, within the chemical and life sciences some departments/faculties will be split between the Natural Sciences and Medical and Health Sciences categories for TEF such as chemistry or biosciences with pharmacy. It may be more appropriate to compare subjects between these groups than comparing chemistry with mathematical sciences. Equally, for small institutions, it may be highly appropriate to look at the provider level metrics.

Such decisions would need to be justified and validated by the OfS prior to submissions being prepared. The rules would also need to be sufficiently robust to prevent gaming – this would require a clear understanding of the reasons for the lack of data.

11. Do you:
> **a) agree that QAA Subject Benchmark Statements and PSRB accreditation or recognition should remain as a voluntary declaration, and if not, why?**
>
> **Options: Yes - strongly agree**   Yes - agree   Neither agree nor disagree   No - disagree   No - strongly disagree

RSC comment:
As the accrediting body for chemical science degrees in the UK we feel that PSRB accreditation should remain as a voluntary declaration.

It should be noted that accreditation is applied at a programme level, not the subject level considered by TEF. Were declaration of accreditation to be compulsory, this would take up a significant proportion of the submission and not necessarily contribute value for the decision-making process. The only exception would be when the subject contains programmes where accreditation is required as part of a "license to practice".

Royal Society of Chemistry accreditation overlaps to some extent with TEF but does not look at all of the same criteria and is certainly not gauged in the same context. The RSC accreditation is assessed in an entirely different manner. Our accreditation uses the QAA Chemistry Benchmark Statement, and is based on learning outcomes and the quality of the students at the conclusion of any degree programme. We look at the scientific elements alongside quality assurance, resourcing and the learning environment which are important to the student experience.

Our accreditation follows a five-year cycle. If this is out-of-sync with the TEF cycle, then there could be time-lag issues, which could cause problems if a declaration about accreditation were mandatory.

Required declaration of accreditation would be problematic for multi-subject programmes and those for which there is no professional body.

We are also concerned that mandating use of accreditation for TEF might damage the relationship between the RSC and providers.

Although not compulsory, it would by highly appropriate for providers to mention accreditation in their submissions as it shows evidence of quality and of involvement in a peer review process.

b) think that there are any subjects where mandatory declaration should apply?

Options: Yes

RSC comment:
This should only apply when the subject contains programmes where accreditation is required as part of a "license to practice".

12. Do you agree with our approach to capturing interdisciplinary provision (in particular, joint and multi-subject combined courses)?

Options: Yes - strongly agree   **Yes - agree**   Neither agree nor disagree   No - disagree   No - strongly disagree

Please explain your answer. We want to ensure that providers are not discouraged from taking an interdisciplinary approach as an unintended consequence of subject-level TEF. We therefore welcome feedback on how the proposed approach will impact on providers and students.

RSC comment:
In general we agree with the pro-rata approach for joint honours degrees. However, great care will be needed when presenting these courses and ratings to students. Subject A and Subject B may both be rated gold, however, it does not automatically follow that the a student choosing a joint honours course in A and B will have a gold experience or can expect gold outcomes.

The case for the treatment of multi-subject programmes is less compelling and a number of questions remain.

Has the current landscape of multi-subject programmes been mapped? Are the reasons for multiple codes fully understood, e.g. are they truly multi-subject programmes, or are they interdisciplinary programmes which are not adequately served by the current JACS/HECoS coding structures.

No students are currently mapped to "General and others in sciences". How will this subject be populated? Will past students be re-coded - a huge administration task? Or will this start from scratch once TEF is fully implemented – in which case the metrics will not be available for many years.

13. On balance, are you in favour of introducing a measure of teaching intensity in the TEF, and what might be the positive impacts or unintended consequences of implementing a measure of teaching intensity?

> **Options:** Yes - strongly agree   Yes - agree   Neither agree nor disagree   No - disagree   **No - strongly disagree**

RSC comment:
We are not in favour of a teaching intensity measure for the following reasons;
- The numerical measure is extremely simplistic, and provides little information of value about the quality of teaching.
- The measure considers only staff-student ratios and time taught, with no reference to the type of staff or the nature of teaching and learning. This does not adequately reflect the rich diversity of teaching and learning experiences within each programme at an institution.
- It would be extremely difficult to develop a meaningful measure which reflects the learning experience of work placement and independent research projects – both of which are highly valued by students and employers.
- Students' perceptions are valuable in a system which is seeking constant improvement. However, they would be a flawed tool for informing choices between courses and/or institutions.
- Any simplistic measure could have unintended consequences and be subject to gaming.
- Chemistry degree programmes always involve large amounts of contact time (for example laboratory time is dictated by accreditation requirements) so teaching intensity would not provide a useful means of distinguishing between departments.

14. What forms of contact and learning (e.g. lectures, seminars, work based learning) should and should not be included in a measure of teaching intensity?

RSC comment:
For the reasons identified in our response to question 13, we are not in favour of introducing a measure of teaching intensity. Teaching and learning at university takes place in a number of different ways, and rightly varies between subjects. No single measure will appropriately reflect this.

15. What method(s)/option(s) do you think are best to measure teaching intensity? Please state if there are any options that you strongly oppose and suggest any alternative options.

RSC comment:
We oppose all the proposed options as they are too simplistic to be useful in informing students who should expect a rich diversity of teaching and learning experiences.

All the options presented would have a high administrative burden for little value, and in some cases are measuring the wrong things, e.g. it is inappropriate to equate the seniority of the "teacher" with the quality of the students' experience. Seniority in a university can be achieved through a number of different mechanisms – some unrelated to teaching expertise.

16. Do you have any other comments on the design of subject-level TEF that are not captured in your response to the preceding questions in this consultation?

With over 50,000 members and a knowledge business that spans the globe, the Royal Society of Chemistry (RSC) is the UK's professional body for chemical scientists, supporting and representing our members and bringing together chemical scientists from all over the world. A not-for-profit organisation with 175 years of history, we invest in educating future generations of scientists, we raise and maintain standards and work with industry and academia to promote collaboration and innovation. We advise governments on policy and we promote the talent, information and ideas that lead to great advances in science.

As a professional body we recognise and promote excellence in post-18 education. We currently accredit over 375 undergraduate chemistry programmes at around 60 UK universities along with more than 30 programmes at a further 24 universities around the world.

Our vision is that everyone has access to an excellent chemistry education that ensures students have the skills and knowledge to benefit society.

Our response to this consultation has been developed in collaboration with our community, including input from our Accreditation Committee and Directors of Undergraduate Teaching policy group, and the Heads of Chemistry UK (HCUK).

HCUK is an independent body representing the interests of departments engaged in chemical education, scholarship and research in universities and similar institutions throughout the United Kingdom and Republic of Ireland.