Measuring teaching excellence: challenges and possibilities

Paul Ashwin
p.ashwin@lancaster.ac.uk
Twitter: @paulashwin
Educational Research Seminar
18th January 2017
Introduction

- Teaching Excellence;
- The challenge of measuring Teaching Excellence through metrics;
- Key characteristics of a valid metric of teaching quality;
- Problems with existing metrics;
- The TEF Metrics;
- Conclusions.
Teaching Excellence

- Higher Education Teaching Excellence initiatives are widespread internationally (for example see Land and Gordon 2015);
- In a context in which there is increasing demand to measure and compare the quality of university teaching;
- There are many unhelpful myths around ‘excellence’ in teaching;
- But today I want to focus on issues around the measurement of teaching excellence.
Excellent teaching needs to flourish across the sector; lacklustre teaching and unacceptable variability in quality need to be addressed. (BIS 2016)
The challenge of measuring teaching quality through metrics

- Teaching as a local achievement;
- Involves helping particular students to engage with particular bodies of knowledge in particular settings;
- This makes it very difficult to capture a valid measure of teaching quality through metrics.
Considerations when developing measures of teaching quality

- Any measures need to take account of both:
  - What we know based on over 40 years of research into learning and teaching in higher education;
  - What we know about what happens when measures become performance indicators (Goodhart’s Law/Lucas Critique);
- We need to recognise that measurement is expensive and so needs to lead to changes in practices;
- We need to beware of false precision in any proposed measures - we are working with sledgehammers rather than lasers!
Key characteristics of valid metrics of teaching quality

We need ways of assessing teaching quality that:
1. Provide a relatively simple comparison of quality;
2. Measure the quality of teaching offered rather than reputation or prestige;
3. Require improvements in teaching practices in order to improve performance on the measures;
4. Draw on a variety of measures that tell us about quality from different perspectives;
5. As a whole, are based on a coherent, research-informed vision of teaching;
6. Make comparisons at the level of the subject rather than the institution;
7. Reflect the purposes of higher education (based on Ashwin and Sweetman 2016)
Problematic Metrics 1: Rankings

- National and international higher education rankings are a dominant way of comparing quality.
- They travel across a number of contexts and audiences;
- They tend to involve unrelated and incomparable measures;
- Differences of many places are meaningless;
- Their stability reinforces privilege: higher status institutions tend to enrol a much greater proportion of privileged students.
## Assessment of rankings as a measure of teaching quality

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Provide a relatively simple comparison of quality; ✓</td>
</tr>
<tr>
<td>2.</td>
<td>Measure the quality of teaching offered rather than reputation or prestige; ✗</td>
</tr>
<tr>
<td>3.</td>
<td>Require improvements in teaching practices in order to improve performance on the measures; ✗</td>
</tr>
<tr>
<td>4.</td>
<td>Draw on a variety of measures that tell us about quality from different perspectives; ✓</td>
</tr>
<tr>
<td>5.</td>
<td>As a whole, are based on a coherent, research-informed vision of teaching; ✗</td>
</tr>
<tr>
<td>6.</td>
<td>Make comparisons at the level of the subject rather than the institution; ✓</td>
</tr>
<tr>
<td>7.</td>
<td>Reflect the purposes of higher education ✗</td>
</tr>
</tbody>
</table>
Problematic Metrics 2: AHELO

- OECD’s Assessment of Higher Education Learning Outcomes (AHELO) project sought to compare the quality of what students learn in different institutions and countries.
- Focused on Economics and Engineering - what would it look like in literature or history?
- Generic skills tests for disciplines that are not easily comparable - examine skills that ‘should be desired by students in any discipline’.
- But are skilful performances shaped by generic skills or students’ understanding of a particular task and their interactions with other people and things?
- What if AHELO succeeded?
## Assessment of AHELO as a measure of teaching quality

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Provide a relatively simple comparison of quality;</td>
<td>✔</td>
</tr>
<tr>
<td><strong>2.</strong> Measure the quality of teaching offered rather than reputation or prestige;</td>
<td>✗</td>
</tr>
<tr>
<td><strong>3.</strong> Require improvements in teaching practices in order to improve performance on the measures;</td>
<td>✗</td>
</tr>
<tr>
<td><strong>4.</strong> Draw on a variety of measures that tell us about quality from different perspectives;</td>
<td>✗</td>
</tr>
<tr>
<td><strong>5.</strong> As a whole, are based on a coherent, research-informed vision of teaching;</td>
<td>✗</td>
</tr>
<tr>
<td><strong>6.</strong> Make comparisons at the level of the subject rather than the institution;</td>
<td>✔</td>
</tr>
<tr>
<td><strong>7.</strong> Reflect the purposes of higher education</td>
<td>✗</td>
</tr>
</tbody>
</table>
The aims of the TEF are to:
- provide students with information that will allow them to make more informed choices about what and where they study;
- raise the profile of teaching and ensure that it is better recognized and rewarded;
- ensure higher education better meets the needs of employers and industry.

In order for institutions to raise fees in line with inflation, they will need to show that they are offering students a high quality undergraduate education.

Year 1: Any institution with a positive Quality Assurance Agency Institutional Review is automatically qualified to increase its tuition fees from September 2017.

Year 2, institutions will need to opt into the TEF. All level of awards can raise fees by same amount in September 2018.

Year 3, the different level of awards will begin to impact on the amount by which institutions can raise fees in September 2019, and there will also be pilots aimed at focusing the TEF down onto individual subjects within institutions.

Year 4, the subject level TEF will be introduced, and the TEF will also include taught postgraduate students.
TEF Year 2 Structure

Universities assessed on assessment criteria relating to teaching quality, learning environment and student outcomes.

- **Teaching Quality:** Student Engagement (TQ1); Valuing Teaching (TQ2); Rigour and Stretch (TQ3); Feedback (TQ4).

- **Learning Environment:** Resources (LE1); Scholarship, Research and Professional Practice (LE2) Personalised Learning (LE3).

- **Student Outcomes and Learning Gain:** Employment and Further Study (SO1); Employability and Transferrable Skills (SO2); Positive Outcomes for All (SO3).

(see DfE 2016)
TEF Year 2 Metrics: White Paper & Technical Consultation

- Examine performance on metrics over a three-year period;
  - Students’ views of teaching, assessment and academic support from the National Student Survey;
  - Non-completion rates;
  - Rates of employment and further study from the Destinations of Leavers from Higher Education Survey (DHLE) and ‘highly skilled job metric’.

- Benchmarked by student intake with significant differences flagged.

- Initial hypothesis formed based on number of positive/negative flags

- Then examination of contextual information and institutional 15 page submission

- Institutions awarded TEF Gold, Silver or Bronze
## Assessment of TEF Year 2 as a measure of teaching quality

1. Provide a relatively simple comparison of quality; ✔
2. Measure the quality of teaching offered rather than reputation or prestige; ✔
3.Require improvements in teaching practices in order to improve performance on the measures; ✔
4. Draw on a variety of measures that tell us about quality from different perspectives; ✔
5. As a whole, are based on a coherent, research-informed vision of teaching; ✗
6. Make comparisons at the level of the subject rather than the institution; ✗
7. Reflect the purposes of higher education; ✗
Issues with the Year 2 TEF metrics

Issues as metrics:

➢ How and why selected?

Issues related to their use:

➢ Differences between institutions’ scores on the selected metrics tend to be small and not significant (Office for National Statistics, 2016)

➢ Not robust enough to support a future subject level TEF (ONS, 2016).

➢ Back to peer review?
Year 3 TEF and Beyond

Identified future metrics:

- Longitudinal Education Outcomes data set – more precise data on the relationship education and earnings;
- Contractual status of academic staff – measure extent of casualisation;
- Teaching intensity/weighted contact hours;

None of these directly related to quality of teaching. With teaching intensity/contact hours particularly problematic.
Why are contact hours such a poor measure of teaching quality?

There might be contractual reasons for students having guarantees over contact hours, **BUT ...**

- High quality teaching is about designing a range of experiences that enable students to develop an understanding of particular forms of knowledge;
- This means that increasing the contact hours on a well designed degree programme will not improve the quality of students’ learning;
- There is why there is no evidence they are related to the quality of students’ learning;
- They are incredibly easy to game.
## Assessment of TEF Year 2 as a measure of teaching quality

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Provide a relatively simple comparison of quality;</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>2.</td>
<td>Measure the quality of teaching offered rather than reputation or prestige;</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3.</td>
<td>Require improvements in teaching practices in order to improve performance on the measures;</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>4.</td>
<td>Draw on a variety of measures that tell us about quality from different perspectives;</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>5.</td>
<td>As a whole, are based on a coherent, research-informed vision of teaching;</td>
</tr>
<tr>
<td></td>
<td>❌</td>
</tr>
<tr>
<td>6.</td>
<td>Make comparisons at the level of the subject rather than the institution;</td>
</tr>
<tr>
<td></td>
<td>❌</td>
</tr>
<tr>
<td>7.</td>
<td>Reflect the purposes of higher education</td>
</tr>
<tr>
<td></td>
<td>❌</td>
</tr>
</tbody>
</table>
Assessment of TEF Year 3 and beyond as a measure of teaching quality

1. Provide a relatively simple comparison of quality; ✔
2. Measure the quality of teaching offered rather than reputation or prestige; ✗
3. Require improvements in teaching practices in order to improve performance on the measures; ✗
4. Draw on a variety of measures that tell us about quality from different perspectives; ✔
5. As a whole, are based on a coherent, research-informed vision of teaching; ✗
6. Make comparisons at the level of the subject rather than the institution; ✔
7. Reflect the purposes of higher education ✗
Assessment of rankings as a measure of teaching quality

1. Provide a relatively simple comparison of quality; ✔️
2. Measure the quality of teaching offered rather than reputation or prestige; ❌
3. Require improvements in teaching practices in order to improve performance on the measures; ❌
4. Draw on a variety of measures that tell us about quality from different perspectives; ✔️
5. As a whole, are based on a coherent, research-informed vision of teaching; ❌
6. Make comparisons at the level of the subject rather than the institution; ✔️
7. Reflect the purposes of higher education ❌
Alternative ways of developing the TEF
1: The system

- The overall TEF criteria need to be aligned with a clear view of high quality teaching;
- Individual metrics need to be designed to be an integral part of a collective and coherent system of metrics;
- There needs to be a mechanism outlined for a sector-wide discussion of the system of metrics rather than simply the individual metrics;
- Survey scales informing metrics should be drawn from a very large bank of potential items, with the actual items used changing every year.
Alternative ways of developing TEF 2: Individual metrics

- If there is to be a contact hours metric, it should focus on whether students’ perceive that they had sufficient teaching to understand the knowledge they were engaging with;

- If the TEF is to measure teaching quality, then it needs to develop metrics associated with:
  - Expert teaching;
  - Students relations to knowledge;
  - 1st year experience.
Conclusions

- TEF Year 2 metrics will offer a more valid view of teaching quality than university rankings;
- However, they will not support the level of differentiation that are expected of them;
- Future metrics look more worrying as metrics;
- Danger that metrics associated with students’ consumer rights dominate rather than those associated with teaching quality.


