Improving research culture - confidence in qualitative assessment methods

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#ResearchCulture #ReformingRA
Research assessment reform is a central lever to improving research culture

Basing assessment primarily on qualitative assessment methods is central to current reform

Exploring qualitative methods presents opportunities for better assessing how research is done, but challenges remain
Research assessment reform is a central lever to maximising research quality and impact and to improving research culture
Research culture – how research is done

‘Research culture encompasses the behaviours, values, expectations, attitudes and norms of our research communities. It influences researchers’ career paths and determines the way that research is conducted and communicated.’

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Narrow definitions of success are a core cause of poor research culture

Poor research culture e.g. over-reliance on metrics; compromises on rigour and integrity; undervaluing of negative results and of replication studies; lack of transparency around hiring and promotions; barriers to diversity and inclusion

‘Highly competitive environment combined with the very narrow definitions of success’

‘The relentless drive for research excellence has created a culture in modern science that cares exclusively about what is achieved and not about how it is achieved.’

- Jeremy Farrar, Director, Wellcome

Poor research culture e.g. unhealthy competition; bullying and harassment; poor management practice; stress and anxiety; mental health issues; impact on personal relationships; isolation

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Key aspects of achieving researcher wellbeing and research success are under-recognised

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Survey of 126 researchers, mostly at Flemish research institutions by Noémie Aubert Bonn and Wim Pinxten

Recognising broader contributions and reliance on qualitative assessment methods are central to research assessment reform
Agreement

• Assessment processes relying predominantly on journal- and publication-based metrics can be a hurdle to the recognition of diverse contributions and may negatively affect the quality and impact of research. They also contribute to an unhealthy research culture and an unaffordable publication system.

• Building on progress made so far (DORA, Leiden Manifesto, Hong Kong Principles), the Agreement establishes a common direction for research assessment reform, while respecting organisations’ autonomy. It is based on shared principles, 10 commitments, and a timeframe (1 & 5 years) for reforms.

• Agreement published on 20 July 2022.
Core commitments

1. **Recognise the diversity of contributions** to, and careers in, research, in accordance with the needs and the nature of the research.

2. **Base research assessment primarily on qualitative evaluation for which peer-review is central**, supported by responsible use of quantitative indicators.

3. **Abandon the inappropriate uses in research assessment of journal- and publication-based metrics**, in particular the inappropriate uses of journal impact factor (JIF) and $h$-index.

4. **Avoid the use of rankings of research organisations** in research assessment.
Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.
Coalition for Advancing Research Assessment

• **Mission:** Enable systemic reform of research assessment on the basis of common principles and commitments within an agreed timeframe, as set in the Agreement on Reforming Research Assessment.

• **Offers a space for its members (signatories of the Agreement) to learn from others' experiences,** to advance the process of research assessment reform in Europe and beyond.

• The **Constitutive Assembly,** the first meeting of the General Assembly of members of the Coalition, took place on 1 December 2022.

• Coalition members have now been invited to be involved in **Working Groups** with the aim to achieve the Commitments and CoARA's mission.

465 member organisations as of 04 May 2023

Just 10 UK members, only 4 UK universities

@KarenStroobants @CoARAssessment #ReformingRA
Basing research assessment primarily on qualitative evaluation?
Exploring ‘new’ qualitative methods presents opportunities for better assessing how research is done, but challenges remain for their implementation.
Assessing how research is done?

Evaluation of Research Careers fully acknowledging Open Science Practices
Rewards, incentives and/or recognition for researchers practicing Open Science

Exploring research integrity indicators: A new project by UKRI, Cancer Research UK and GuildHE

by Rachel Persad | Dec 9, 2021 | Projects

We are pleased to announce a new collaboration between UKRI, Cancer Research UK and GuildHE, to explore what indicators of research integrity exist, or could be proposed, that are valid, reliable, ethical and practical, and to open a national and international discussion on next steps. We see this area as a growing policy priority, and this project will inform the work of the recently-established UK Committee on Research Integrity.

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Improving culture
Opportunities

Qualitative central
Opportunities

Should/can ‘how research is done’ be captured in quantitative metrics?

1. Openness and quality are not the same thing
2. Measuring openness and quality leads to double the metrics
3. Is openness mature enough to be measured?
4. Openness should be its own reward

“As a general rule of thumb, we suggest the use of quantitative indicators for quantitative things: publications, money, citations and students, and qualitative indicators for qualitative things: excellence, quality, value, impact.” – Lizzie Gadd

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Exploring how to better capture process, behaviours and competencies

Publication bias & lack of data sharing
~92% positive & ~70% failure
![Diagram](image)

Improving culture
Opportunities
Qualitative central

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COS 10 YEARS
— CENTER FOR OPEN SCIENCE —
Science Works Best in the Open
Competency-based approaches are prevalent in other sectors...

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... but are underused in assessing research process and culture in academia

**Open science** – can you give an example of where others have build on your data or research and highlight any specific efforts on your part for them to do so?

**People management** – can you give an example of where you had to motivate an employee who was showing performance issues, how did you go about this and what was the outcome?

**Research integrity** – can you give an example of an occasion where you had doubts about soundness of your own work or that of a colleague, how did you address this and what was the outcome?

**Collaboration / teamwork** – can you give an example of a situation where you had a disagreement with a colleague, how did you handle this and what was the outcome?

**Financial management** – can you give an example of a situation where you experienced challenges delivering a project to time and/or budget, how did you resolve these?

**Reflection**

Could also lead to...
- decreasing the gap between academic and support / research management staff
- improving two-way intersectoral mobility

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Challenges for introducing competency-based approaches

“Quantitative approaches are objective, qualitative approaches are subjective”

“People can just invent their answers”

“We’ll end up hiring the people who can bring the most convincing stories”

“Quantitative metrics are not bias-free (since there are biases throughout the publication process), and hence not objective – all forms of assessment are subjective to some extent

• Being able or competent is not the same as being kind

• People also invent data (which arguably is worse)... - the benefit of narratives is that you likely will still learn a lot whether truthful or not

• No one would suggest these as the only tool, of course peer review and other existing practices that the community deems appropriate and valuable should be retained

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Utility of qualitative/quantitative assessment methods at different aggregate levels

“Bibliometrics do not understand varying contexts” - Metrics in individual-level assessments - Advice to research organizations and their leadership from The National Board of Scholarly Publishing (Norway)

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What I hope you’ll take away today

• **Research assessment reform is a central lever** to maximising research quality and impact and **to improving research culture** (if it can result in better aligning science and career success)

• Recognising broader contributions and **reliance on qualitative assessment methods** are **central to research assessment reform** (and many organisations have committed to *this* reform)

• Exploring ‘new’ **qualitative methods** in particular presents opportunities for better assessing how research is done (but lots of efforts will be needed to overcome challenges with their development, acceptance and implementation)
How can individual researchers contribute to research assessment reform?

- Join the conversation – organise a café culture discussion
- Share your insights and opinions – participate in research on research
- Change expectations – help shape what success means
- Become an ambassador for change – raise awareness of DORA and coara.eu
- Consider broad criteria in research(er) assessment – be a responsible assessor

Stroobants K. (2021) https://doi.org/10.1038/d41586-021-01208-3

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(Biomedical) researchers suggest rewarding team effort, providing 360 feedback and use of narratives for **assessment of relational responsibilities** (collaboration, supervision, teaching)

- relational responsibilities should ideally play a more prominent role in future assessment criteria as they correspond with and aspire the practice of responsible research

- participants gave several suggestions how to make these skills quantifiable and assessable

- the development of these criteria is still in its infancy, implementation can cause uncertainties among those assessed and consequently, future research should focus on how to make these criteria more tangible, concrete and applicable in daily practice

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