UNIVERSITY OF LEEDS

Research and Innovation Board

Metrics to track improvements in research culture

The Board is asked to review the metrics agreed by the research culture team and associated colleagues.

Overview

This paper details the internal process and outcomes of selecting metrics to track improvements in research culture during the period of the Research Culture Strategy 2023 – 2028.

While we acknowledge that cultural change is hard to measure, this is our commitment to doing so. Our scoping work precedes the REF2028 initial decisions report (released 15/06/23). This proposes to use a questionnaire-style template for assessment of the expanded People and Culture element, but does not yet commit to specified metrics. While consulting nationally on the REF metrics, we will proceed locally using the internal metrics specified below, retaining openness and flexibility to allow alignment with the forthcoming REF metrics as they are announced.

Our metrics will be implemented and monitored by the research culture team and complement the University's KPIs.

Introduction

The aim of our Research Culture Strategic Plan is to enable more of our UoL colleagues to work openly, collaboratively, inclusively and supportively. It focuses on four strategic objectives:

SO1. We will value diverse forms of research activity

SO2. We will embed EDI principles in research practices

SO3. We will enable Open Research practices

SO4. We will mutually support and develop research teams

Whilst the overarching strategic plan is progressing through the formal approval process, we focused on how best to measure the changes we want to see. To guide this process, we followed the SCOPE Framework as a model for implementing responsible evaluation. The SCOPE principles align with our research culture values - *Evaluate only where necessary; Evaluate with the evaluated; Draw on evaluation expertise* - as well as providing a useful five-stage process for generating, stress-testing, and evaluating candidate metrics.

Process of metric selection

A longlist of 85 candidate metrics for measuring culture change across our four strategic objectives was generated in an extended meeting of the Research and Innovation Board on 16/01/23.

Members of the research culture team then coded each candidate metric for specificity, measurability, validity, data availability, co-dependencies, and target thresholds to identify or modify any unfeasible candidate metrics, and to select metrics to take forward for further probing. The

Research Culture Strategy Working Group (RCSWG) then narrowed down the longlist to the top ≈5 candidate metrics for each strategic objective.

This shortlist (see asterisked metrics at the top of each objective in the longlist) was further considered at a facilitated workshop with internal and external stakeholders in research culture. Attendees probed the benefits and risks of each shortlisted metric, to finally agree on a set of effective, feasible, and acceptable metrics. The activities and outcomes of the metrics workshop are summarised in this blog.

Agreed metrics

The following five metrics were agreed by the RCSWG:

SO1: We will value diverse forms of research activity

- **Increase in the diversity of the types of research activities that are communicated and celebrated.**

SO2: We will embed EDI principles in research practices

- **Increase in the proportion of academic staff promotions (research track only) to Grades 9 and 10 by colleagues with protected characteristics that have previously been under-represented.**

SO3. We will enable open research practices

- **Increase in the number and variety of UoL research outputs deposited in institutional research information systems.**

SO4. We will mutually support and develop research teams

- **i. Increase in the variety of staff roles named as PI, Co-I and Researcher Co-I on funding applications.**
- **ii. Increase in the proportion of staff stating they have benefited from researcher development programmes, by career stage.**

Our selection process and associated discussions demonstrated that there is no perfect metric, and that each involves a trade-off between data availability, representativeness, potential for gaming, and a range of other concerns. However, the agreed metrics are SMART, adhere to SCOPE principles, and will be driven by a range of centralised and local research culture projects. Reasons for excluding candidate metrics can be found in the appendix below.

Implementation summary

The agreed metrics are primarily quantitative and will be complemented by qualitative data gathered via pulse surveys running throughout the term of the strategic plan (2023-2028). Targets will be determined once baseline data has been collected in 2023/24. Rather than benchmarking against peer HEIs, our baselining approach reflects the 'distance travelled' methodology expected from the REF2028. Local baselining will also accommodate differing stages of progress in research culture across the University.

Metric	Measurable	Measurement Frequency
Increase in the diversity of the types of research activities that are communicated and celebrated.	Number of features mentioning research enablers, non-traditional outputs, research culture activities, research impact activities within School, Faculty, Institutional comms.	6-monthly
Increase in the proportion of academic staff (research track only) promotions to Grades 9 and 10 by colleagues with protected characteristics that have previously been under-represented.	Equality data on academic staff (research track only) promotions to G9 and 10 by disability, ethnicity, gender, religion/belief and sexual orientation, cf. comparable data on academic staff in post (for grades 8-10).	Annually
Increase in the number and variety of University of Leeds research outputs deposited in institutional research information systems.	Total number of outputs recorded in Symplectic for the given year.	Annually
As above	Number of each type of output recorded in Symplectic for the given year.	Annually
Increase in the variety of staff roles named as PI, Co-I and Researcher Co-I on funding applications.	Number of staff by role that have applied for funding as Co-I, PI and Researcher Co-I (via KRISTAL, Je-S and the UKRI Funding Service).	Annually
Increase in the proportion of staff stating they have benefited from researcher development programmes, by career stage.	Number of staff engaging with self-guided resources and recorded presentations provided by OD&PL.	Quarterly
As above	Number of staff attending development sessions provided by OD&PL.	Annually

Further details of implementation can be found in this table.

Institutional KPIs

The agreed metrics complement institutional KPI 6: *Providing a healthy, safe and inclusive environment and enriching experience for staff and students.* In collaboration with BIDA, the research culture team has identified two measures under KPI 6C*: (Increased staff experience of a positive research culture),* to be measured via the Employee Engagement survey.

- **Proportion of researchers/research enablers indicating that they believe the University community is acting effectively to improve our research culture** (baseline 44.3% positive responses, May 2023);
- **Positive response to survey questions relating to researchers/research enablers experience of our research culture** (baseline 46.4% positive responses, May 2023)

We have set an ambitious but achievable goal of a **7-10% increase** for each of these measures over the next 18 months.

Via follow-up pulse surveys, we will also monitor a third institutional measure: **proportion of researchers / research enablers actively engaged in initiatives to improve our research culture**.

Appendix: Longlist of candidate metrics; common reasons for exclusion

*Shortlisted metric probed at the metrics workshop.

SO1: Valuing diverse forms of research activity

1. Increase in the proportion of the University's UKRI-funded research portfolio that generates non-standard outputs during the annual ResearchFish submission period. Non-standard outputs are defined as outputs other than journal articles and monographs.*
2. Increase in the diversity of the types of research activities that are communicated and celebrated.*
3. Increase in the proportion of staff who report actively contributing to initiatives to improve research culture. Contributions include Research Culture project Co-I, committee member, event organiser, adopter of RC initiative.*
4. Internal funding/award schemes that recognise nonstandard outputs.
5. Naming of nonstandard outputs (outputs other journal articles, monographs) in successful grant applications.
6. Range of staff profiles included in grant applications (e.g. involvement of experimental officers, research associates and research professionals).
7. Collaborations with non-HEIs.
8. Use of CRediT.
9. Fully inclusive use of CRediT, i.e. making sure ALL contributions get recognised.
10. Engagement with Technician Commitment.
11. Implementation of initiatives to support research enablers.
12. Recognition of research culture work in promotion materials.
13. Recognition of research culture work in recruitment materials.
14. Uptake of recruitment and promotion panel training for recognition of research culture practices.
15. Use of narrative CVs in internal processes.
16. Uptake of responsible metrics training.

SO2: Embedding EDI principles in research practices

1. Increase in the proportion of **academic promotions to Grades 9 and 10** of colleagues with protected characteristics that have previously been under-represented, e.g. women, colleagues with disabilities, and those who have been racially minoritised.*
2. Increase in the proportion of **external funding applications submitted** (PI and CoI) by colleagues with protected characteristics that have previously been under-represented, e.g. women, colleagues with disabilities, and those who have been racially minoritised. *
3. Increase in the proportion of **external funding applications awarded** (PI and CoI) to colleagues with protected characteristics that have previously been under-represented, e.g. women, colleagues with disabilities, and those who have been racially minoritised.*
4. Increase in the proportion of **internal funding applications submitted** (PI and CoI in e.g. IAA, Policy Fund, seed-corn funding) by colleagues with protected characteristics that have previously been under-represented, e.g. women, colleagues with disabilities, and those who have been racially minoritised.*
5. Increase in the proportion of **internal funding applications awarded** (PI and CoI in e.g. IAA, Policy Fund, seed-corn funding) to colleagues with protected characteristics that have

previously been under-represented, e.g. women, colleagues with disabilities, and those who have been racially minoritised.*
6. Number of Positive Action initiatives used in recruitment to research positions.
7. Number of Positive Action initiatives in internal research funding schemes.
8. Number of promotions that are awarded where some EDI activity has been flagged.
9. Number of examples or projects using inclusive research delivery and design.
10. Number of examples of engagement with the decolonising research framework.
11. Number of examples of EDI engagement by senior leaders.

SO3: Enabling open research practices

1. Increase in the proportion of staff that are aware of Open Research (OR) and how it relates to their own discipline.*
2. Increase in the proportion of staff engaging with OR practices.*
3. Increase in the proportion of staff engaging with OR training &/or events.*
4. Provision of OR training (staff, all student type).
5. Uptake of OR training (staff, all student type).
6. Recognition of OR in HR/career processes (recruitment, probation, promotion, AAM).
7. OR commitment explicit in institutional/Faculty strategy/policy.
8. Institutional resourcing model enables OR.
9. Outputs shared with no restrictions on access.
10. Pre-registration of protocols.
11. Increase in the number of pre-prints posted per researcher.
12. Use of the Rights Retention route to open access.
13. Sharing of research tools/hardware/software.
14. Open practice extending beyond funder mandates.
15. Open peer review.
16. Participation in Citizen Science initiatives.
17. Membership of open research communities of practice (CoP) (e.g., KEN / UKRN / OSN, UKCoRR).
18. Impact of membership of OR Communities of Practice.
19. Positive disruption in scholarly communication landscape (engaging with different practices and platforms e.g., Octopus).
20. Re-use of OR outputs (instances of data, code re-use).
21. Support and monitoring of engagement with CRediT.
22. Fully inclusive use of CRediT.
23. Data on current collaboration practice e.g. from SciVal.
24. Increased local and wider collaboration on applications and publications, which may include a measure around cross-disciplinary/diverse collaboration.
25. Recognition of open research in recruitment materials.
26. Engagement with open research practices (e.g. numbers and diversity of colleagues using open resources in the research lifecycle, e.g. platforms, Octopus, co-production).
27. Provision of OR infrastructure.
28. Accessibility - can people read our research, and does it make sense?
29. Proportion of research outputs published open access – in articles, data, software, monographs, and other outputs.

SO4: Mutually supporting and developing research teams

1. Increase in the proportion of staff taking part in researcher development programmes, by career stage.*
2. Increase in the proportion of staff who have held both a PI and Co-I role, compared to those who have only been a PI or Co-I (over a rolling five-year period to avoid fluctuations).*

3. Increase in the range of staff profiles included in grant applications (e.g., involvement of experimental officers, research associates and research professionals).*
4. Numbers of bullying and harassment complaints, referrals, or disclosures.*
5. Increase in the proportion of staff on FTC that have accessed redeployment.*
6. Participation in researcher development programmes, by career stage.
7. Alignment with the Researcher Development Concordat.
8. Uptake of career coaching.
9. Impact of career coaching.
10. Uptake of mentoring schemes.
11. Impact of mentoring schemes.
12. Mentor vs Mentee ratio.
13. Matched vs unmatched requests.
14. Areas of mentoring requested e.g. careers.
15. Diversity of roles that individuals take on, i.e. pathways from CoI to PI to senior leader.
16. Proportion of bids where PIs are at different career stages – building research leadership capability.
17. Pump priming of research teams – internal resources to help build capabilities.
18. Wellbeing: Audit of provision available and levels of engagement. Some of this is done via OD&PL.
19. Average workload for researchers.
20. Use of workload models / support for flexible working.
21. Workload measures and the balance between teaching, research, and other allocations.
22. Use of codes of conduct.
23. Bullying and harassment data, numbers of complaints, referrals or disclosures.
24. Number of referrals to workplace mediation service.
25. Requests for support from PGRs to LUU.
26. Effectiveness of redeployment / numbers of FTCs.
27. Number of researchers currently on redeployment.
28. Number of researchers on Fixed-term contracts.
29. Average contract length.

Common reasons for excluding candidate metrics

1. **Proposed measure not yet sufficiently established,** e.g. recording all instances of Positive Action initiatives across the University.
2. **Proposed metric presents unwanted consequences,** e.g. measuring only attendance at researcher development programmes may promote attending a greater number but less relevant programmes.
3. **Proposed metric requires interrogation of too many different sources at present,** e.g. multiple different platforms for openly sharing data / code. Where metrics have been excluded due to constraints with the current systems for recording and our ability to interrogate these sources, we will review as systems are upgraded.
4. **Not clear if an increase or a decrease in the metric would indicate a positive change in research culture,** e.g. increased reporting of unprofessional behaviour.

Written by Gaynor Miller and Cat Davies, 07/06/2023. Considered by RIB 12/06/2023.

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