Kingston University Principles for the Use of Research Metrics

Kingston University commits to the principles of fairness and transparency, our Corporate Plan is built around such principles, focusing strongly on Equality, Diversity and Inclusion. Research assessment supports professional development, growth and improvement, aids institutional management and meets external requirements. A variety of metrics are generally available or can be devised in order to assess research activity. This document has been developed particularly consulting the documents specified below to form a hybrid model on how to apply such metrics for our own use, suited to Kingston University's own principles.

Key Elements
We recognise 5 key elements to used define responsible metrics outlined in The Metric Tide (2015) and adopted by the UK Forum for Responsible Research Metrics. We expect these to be considered by all University members undertaking a metrics approach:

- **Robustness** – base metrics on the best possible data in terms of accuracy and scope
- **Humility** – recognise that quantitative evaluation should support, not supplant, qualitative, expert assessment
- **Transparency** – those being evaluated can test and verify the results
- **Diversity** – account for variation by research field, use a range of indicators to reflect and support plurality of research and researcher career paths
- **Reflexivity** – recognise and anticipate the systemic and potential effects of indicators, and update in response

Approach
The University expects all units undertaking research to provide leadership and management in this area, aligning with our strategy, KU22, utilising management information as required for staff development. We expect all parts of the University (Academic and Professional/Support) to follow this policy when using research metrics for any aspect of evaluating the performance of individuals or groups or any other aspect of research assessment that could impact upon research careers. This should be complementary to the University Academic Careers Framework (Domains) – this requires assessment of progress across a range of activities specified in the domains booklet. The guidance below should be applied to assessment of any indicators of that progress. It relates to any individual carrying out research under the auspices or on the premises of Kingston University.

We will use the most appropriate information available, including

- qualitative, expert assessment
- metrics (measures that directly measure an activity)
- indicators (indirect measures where no direct measure is possible)

We will retain defined measures over time, to allow stable understanding and sequential comparison, but review regularly to ensure they address the desired activity, rather than becoming an ingrained driver of unintended behaviours. Richer data infrastructure is required to allow capture of wider data to better support assessment. Plans for future investment will incorporate these principles into data structure.
These principles will be reviewed at least every two years, or whenever a significant change in the policy environment dictates e.g. the progress of Plan S\(^5\) is being monitored. Local approaches to assessment will be scrutinised by peers during Annual Monitoring of Research (AMR) exercises.

Assessment of research requires expert judgement. The University has recently undertaken a widespread exercise to upskill in output self-assessment and internal peer assessment. These skills should support the expert assessment process and continuing professional development will be maintained in these areas. Self-assessment of outputs within the criteria of significance, originality and rigour will be encouraged, as will internal peer-assessment of outputs on a similar basis, ideally prior to submission for publication or equivalent, to assist colleagues to hone their outputs. Expert judgement should not be limited by institutional boundaries and will be applied as required.

Any concerns that progress on application of these principles is not being maintained should be raised with Research & Innovation (R&I). Whilst queries should be raised locally, to assist refining practice, any urgent concerns regarding misuse of metrics and potential effects on careers should be notified to:

**Staff:** Head of Research Systems, Governance & Funding (j.parry@kingston.ac.uk).

**Research Students:** Head of Research & Graduate Research School (p.terry@kingston.ac.uk)

### Key Principles - Summary

1. Quantitative evaluation should not replace qualitative, expert assessment
2. Use direct measures where they exist and where not, ensure indicators are clear and relevant
3. Ensure data quality by allowing those evaluated to understand data selection and to feed back
4. Different assessments require different approaches
   a) Research should be published in the most appropriate outlet
   b) The value and impact of all an individual’s research output types should be considered
   c) Assessment forms to consider the value of research outputs should include qualitative and be cross-referenced.
   d) Performance in specific areas can be assessed at the group level, but comparisons should only be drawn between analogous data
   e) Publication venue decisions should weight for field
5. Encourage responsible citation practices in individuals
6. Apply principles across the University, e.g. recruitment and training

Kingston University is committed to [Open Access](#). Researchers are required to deposit in a public repository a version of each output, and/or metadata describing it and method of access. We encourage the use of creative commons licences allowing reuse of information.

Kingston University principles have been informed by and assessed as aligning with the Leiden Manifesto\(^3\) (June 2020) and the San Francisco Declaration on Research Assessment (DORA)\(^4\) (signed 2\(^\text{nd}\) July 2020).
KU Guidance on the Use of Research Metrics

**Principle 1:**
Quantitative evaluation should not replace qualitative, expert assessment

Assessment and management of research within and across disciplines requires expert judgement. Qualitative expert context-based assessment may be informed by quantitative evaluation, but should not be overridden by metrics of any kind.

- We will: Combine use of metrics with expert assessment.
- We will: Combine and cross-reference different approaches.

**Principle 2:**
Use direct measures where they exist and where not, ensure indicators are clear and relevant

Inappropriate indicators can create perverse incentives and encourage gaming. Measures should be as closely related to the factor assessed as possible. Unrelated proxies should not be used e.g. journal impact factors do not indicate research quality.

- We will: Define measures in policy prior to applying them.
- We will: Define and describe any indicators that are indirect but best available measures of performance.
- We will: Avoid false reliance on non-significant data such as excess decimal places.  

**Principle 3:**
Ensure data quality by allowing those evaluated to understand data selection and to feed back

In order to make the best possible assessments of our research, we wish to ensure that all datasets are correct and data selection is transparent.

- We will: Use established University systems to access data. These include the Academic Repository, personal web profiles and the Unified system (RCP), to which researchers upload or have access to their own data.
- We will: Provide clarity on input data sources and selection methods (e.g. timeframes) and allow feedback to identify errors and clean data where appropriate.
- We will: Use the University data warehouse and data insight, and undertake regular verification exercises when using other internal systems e.g. SITS for research student data and seek assurance on methodology of external data.
Principle 4: Different assessments require different approaches

An individual or a group, a single output or a body of work, a journal or an article, a paper or a book are each different and require a different assessment approach. Similarly, different discipline areas may require a different approach.

We will: Use approaches designed locally, based on expert academic knowledge of the area to be assessed.

We will: Design different approaches for different assessments, based upon our stated strategies.

Principle 4a: Research should be published in the most appropriate outlet

Whilst policies to encourage publication in more visible outlets may be appropriate, they should not dictate to all studies and may not suit interdisciplinary research.

We will: Ensure that researchers can offer their research for publication in the most appropriate outlet.

We will: Encourage more experienced researchers to offer expertise to less experienced.

Principle 4b: The value and impact of all an individual’s research output types should be considered.

An individual’s research produces many types of output. Whilst the productivity of groups in a specific output area may need to be considered for strategic reasons, individuals should be considered on the basis and balance of all their achievements as relevant to the assessment.

We will: Assess individuals regularly against the expectations of our Academic Career Framework (Domains), advising and supporting them to achieve their career aims.

We will: Use the Domains process and expectations for progression decisions.

We will: Use all output types within the relevant Domain to assess an individual.

We will: Apply to any assessment event in the career of a researcher.
Principle 4c:  
Assessment forms to consider the value of research outputs should include qualitative and be cross-referenced.  
e.g. self-assessment, peer review, article-level metrics, age-weighted citations, field-weighted journal ratings, contribution to impact (economic, political, societal etc.), personal endorsements, footfall and feedback forms ...

There are many ways to assess research outputs, each of which has its merits and pitfalls. To ensure a balanced approach, ideally more than one measure, including qualitative evaluation should be cross-referenced. The most appropriate to the type of output and assessment circumstances should be selected.

We will: Use more than one form of assessment where possible, always including expert review, and seek to reconcile inconsistencies.

We will: Select assessment methods that most closely match the activity and reason for assessment.

We will: Ask individuals to self-assess. Where relevant, we will ask them to indicate their best outputs for the purpose, indicating their significance.

Assessing groups

Principle 4d:  
Performance in specific areas can be assessed at the group level, but comparisons should only be drawn between analogous data  
e.g. change over time

Overall performance of groups should use a range of outputs and relate to strategic expectations (e.g. Domains) as for individuals. However, it is useful to gain a view of progress for individual metrics and sufficiently large groups offer a suitable data set. However, direct comparisons between disparate areas should not be drawn using unnormalised input data.

We will: Assess data for significant groups compared to historic performance, strategic targets and/or published national metrics for that area.

We will: Recalculate baselines when there are significant changes to groups (e.g. changes to Faculty structure).
Assessing where to publish

**Principle 4e:** Publication venue decisions should weight for field.

- e.g. 5-year impact factor, EigenFactor, SCImago, h-index, editorial and publication times, etc.

Areas may wish to strategically target papers to venues to give higher visibility. Citation rates and impact vary by field, so are not robust comparators. Normalized indicators are required for any comparison; percentiles are regarded as the most robust method. Any such assessment should consider fit to venue (e.g. journal) and whether principles fit KU principles in addition to any normalized quantitative markers, also ensuring that quality research published elsewhere is not disadvantaged.

We will: Choose appropriate methodology for different fields, in particular not using journal impact factors.

We will: Not make inappropriate comparisons directly between different fields.

We will: Allow a route for those publishing outside of strategic targets to demonstrate quality and gain support.

**Principle 5:** Encourage responsible citation practices by individuals

We should ensure credit is given where it is due and assist others to adhere to similar principles. This includes responsible citation practices and thought in presenting one’s own credentials.

We will encourage researchers to:

- cite primary literature rather than reviews in order to give due credit.
- only self-cite where appropriate.
- provide information on author’s specific contributions.
- ensure all contributions have appropriate credit
- seek and cite funding, to give funders due credit.
- cite their ORCID® so their credit can easily be recognised.

We will: Encourage researchers to consider how to best document and present their work, using multiple data sources and factors to demonstrate and support impact claims whilst crediting colleagues.
Kingston University principles have been informed by the references below


Other Bibliographic information


6. ORCID. Website [https://orcid.org/about](https://orcid.org/about). Accessed 15 April 2020

- Measure performance against the research missions of the institution, group or researcher. Programme goals should be stated at the start, and the indicators used to evaluate performance should relate clearly to those goals. The choice of indicators, and the ways in which they are used, should take into account the wider socio-economic and cultural contexts. Scientists have diverse research missions.

- Review may be based on merits relevant to policy, industry or the public rather than on academic ideas of excellence.

- Metrics built on high-quality non-English literature would serve to identify and reward excellence in locally relevant research.

- A few years ago, a European group of historians received a relatively low rating in a national peer-review assessment because they wrote books rather than articles in journals indexed by the Web of Science. […] Historians and social scientists require books and national language literature to be included in their publication counts; computer scientists require conference papers be counted.

- Citation rates vary by field: top-ranked journals in mathematics have impact factors of around 3; top-ranked journals in cell biology have impact factors of about 30. Normalized indicators are required.

- The older you are, the higher your h-index, even in the absence of new papers. The h-index varies by field: life scientists top out at 200; physicists at 100 and social scientists at 20–30. It is database dependent: there are researchers in computer science who have an h-index of around 10 in the Web of Science but of 20–30 in Google Scholar. Reading and judging a researcher’s work is much more appropriate than relying on one number.

- For example, the journal impact factor is published to three decimal places to avoid ties. However, given the conceptual ambiguity and random variability of citation counts, it makes no sense to distinguish between journals on the basis of very small impact factor differences. Avoid false precision: only one decimal is warranted.

- The meaning of citation counts, for example, has long been debated. Thus, best practice uses multiple indicators to provide a more robust and pluralistic picture.

- Indicators change the system through the incentives they establish. These effects should be anticipated. This means that a suite of indicators is always preferable — a single one will invite gaming and goal displacement (in which the measurement becomes the goal).

- Research metrics can provide crucial information that would be difficult to gather or understand by means of individual expertise. But this quantitative information must not be allowed to morph from an instrument into the goal.