

## UNIVERSITY OF ABERDEEN

### Policy on the Responsible Use of Research Metrics in Research Assessment

#### Introduction

1 The responsible use of research metrics is the fair and transparent use of quantitative indicators in the assessment of research performance. The University recognises that the responsible use of research metrics will help drive forward leading research and has the potential to help improve research impact and visibility. The University has agreed a set of principles on the use of metrics which will apply to all research assessments undertaken. This reflects our commitment with the values and the strategic aims of the University which builds upon the [San Francisco Declaration on Research Assessment](#) 2012 (DORA), which we signed in 2020. In addition, funders, including UKRI and many medical charities, are increasingly requiring researchers to demonstrate their commitment to the responsible use of research metrics.

2 The policy applies to the use of research metrics for staff and students at the University, in support of our research objectives.

#### Governance

3 Senate has ultimate accountability for the responsible use of research metrics in the University. The University Research Committee (URC) will be responsible for overseeing the implementation of the policy, including reviewing metrics options where changes are due to external factors. Training and development in the responsible and appropriate use of metrics will be provided. Schools, where appropriate, will be responsible for the selection and use of discipline-specific metrics, ensuring that they remain in line with relevant University policies and statements. Schools must ensure metrics are clearly articulated and brought to the attention of all who use them (reviewers and reviewees).

#### Responsible Research Metrics

4 The University is committed to the use of expert judgement and peer review to assess research quality but recognises the value of quantitative metrics in supporting decision making. In the context of this policy disciplinary expert judgement and peer review refers to discipline and interdisciplinary based panels. In line with our commitment to DORA, Journal Impact Factors (JIF) or any other metric will not be used as a sole means to assess research. Other metrics can be used to assess work, as part of a recruitment or promotions process or to assess the impact of research of a School, institute or centre as long as not used in isolation or as an alternative to expert peer review. It is acknowledged that the use of metrics is likely to vary across disciplines and that no single metric indicator (e.g. journal impact factor, h-index) provides a complete measure of research quality; a research output must be assessed according to its own merits using a discipline-appropriate 'basket of measures' which include qualitative indicators. Consideration should be given to the context in which the metrics are being used and should be used to support, not replace, expert judgement. In addition, if comparing data from more than one School/discipline it is important to use standardised indicators such as percentages or averages.

Applies to	All staff and students
Valid from date	Feb 2023
Review date	
Approved date	Feb 2023 (Senate)

Version	Instruction	Author	Date
0.1	Draft	R&I – HH	15/06/2022
0.1	Reviewed	Library – FS	17/06/2022
0.2	Updated draft reissued	R&I - HH	22/06/2022
0.3	Updated draft reissued as part of DORA implementation email	R&I- MB	13/07/2022
0.4	Updated draft reissued to MB/NS	R&I – HH	26/08/2022
0.5	Updated following URC discussion	R&I - MB	07/10/2022

0.6	Updated following Senate discussion	R&I – MB/HH	18/01/23
0.6	Approved by Senate		8/02/23

## Institutional Policy on the Responsible Use of Metrics

### Additional Guidance

#### Types of Metrics and Measures

1 Expert judgement remains the primary way to assess research, however metrics can be a useful supplementary tool. Consideration should be given to researchers at different stages of their career, backgrounds, work in different disciplines, workloads and opportunities. Expert judgment or peer review will be conducted by discipline or interdisciplinary based panels.

2 Bibliometric measures are the use of statistical methods to analyse books, articles and other research outputs. Bibliometrics can be used in combination with qualitative measures such as peer review and awarded funding amongst others. Bibliometrics can be used to provide an indication of research impact, identify potential research collaborations, identify potential publication sources. Sources of bibliometric data include for example Scopus, Web of Science and any other sources relevant to disciplines. Data from different sources can be combined to obtain more accurate metrics. However, you cannot compare metrics deriving from different databases because the coverage is different

Common bibliometric measures, which should not be used in isolation, include –

- Citation counts – the number of times a research output appears in the references of other documents.
- Citations per publication – the average number of citations received per publication.
- Field-weighted citation impact – the ratio of citations received relative to the expected world average for the subject field, publication type and publication year.
- H-index – designed to measure author productivity and impact.
- Journal impact factor – based on the average number of citations received per paper published in a specific period (usually 2 or 5 years)
- Outputs in top percentiles – the number or percentage of research outputs in the topmost cited publication (can specify location reach).
- Publication count – or scholarly output, the number of outputs published by an entity.

3 Alternative metrics, such as Altmetrics or PlumX and similar online platforms are based on the number of times an article is shared, downloaded or mentioned on social media, blogs and in newspapers. Alternative metrics should be considered along with traditional bibliometric measurers to allow for a wider view on how a research output is being used. It should be noted that a high number of social media or citation data hits does not necessarily mean that an article is of high quality, also social media can be manipulated, so numbers may not reflect a true level of interest.

4 Assessing your own work should be mainly through expert judgement while research metrics can be used as a supplementary method of assessing. When using metrics, be mindful when comparing yourself to other researchers, as they may be at a different stage of their careers, based in a different discipline, or have different opportunities available to them.

5 Researchers and support staff should be aware of the limitations of data sources. Databases may have limited specific subject coverage and poor coverage of outputs written in languages other than English. It is good practice to refer to different databases and be aware of the limitations.

6 Research Directors and Management can use metrics to assess the impact within a school or institution. A cautious approach should be made when using metrics to compare between disciplines or compare within a discipline. Consideration should be given to the frequency of publications which may differ between disciplines and some disciplines may be underrepresented in certain databases. Within disciplines, some journals or Publishers may publish at a quicker rate, while others have a bigger impact.

7 Recruitment, Annual Review, and Promotion should clearly state which metrics and qualitative measures are used in the assessments and their weight on the final decision. Panels must not rely on journal-based metrics such as journal impact factors and any inappropriate use of such metrics should be challenged and discounted. Such indicators or metrics should be based on openly available data. The purpose of the indicators or metrics are to inform and to support this principle; recruitment and promotion candidates may be asked to provide a narrative that highlights their best outputs and to justify their contribution to advancement of the field. Research assessment practices that rely inappropriately on Journal Impact Factors are not compliant with the principles of DORA.

8 Equality, Diversity and Inclusion - those on recruitment or promotion panels should be mindful that, different researchers, based on their situation, will have different publishing opportunities. Gender inequality remains an issue, along with diversity and racial inequalities and geographical influence. In line with the policy on Equality, Diversity and Inclusion, this policy aims to ensure that an individual's contribution will be valued and assessed based on the content of their outputs through the responsible use of metrics, There is a clear objective for individuals to reach “their full potential through the freedom to be themselves, be authentic and to not seek to conceal elements of their identity to avoid unfair treatment”.

### **Principles on usage**

The University is responsible for ensuring that –

- metrics used follow the principles set out in this policy and the “Statement on Research Assessment” and are fair, transparent and open.
- Schools will have a responsibility to ensure metrics are used appropriately and within the remit of this and other associated policies
- guidance, support and training are provided on the responsible use of metrics
- engagement with external bodies to ensure the University is using metrics accordingly within their remit

The principles on the use of metrics

- expert judgement or peer review will always be the main measure of research assessment
- value the merit of the work over the publication channel, citation count, journal metric or publisher
- metrics should always be used in conjunction with qualitative review methods and not a single measure. Metrics should not be used in isolation as individual metrics are not a single point of truth.
- metrics must be carefully selected from accurate, reliable and understood sources. Combining metrics should only supplement and not replace expert judgement
- when assessing research, all should be mindful of the researcher profile for potential bias, career stage, gender, geographical background, language and race. Metrics should be developed in compliance with and reference to equality, diversity and inclusion
- metrics should be transparent, fair and clearly understood, with a clear methodology for their use
- metrics must be appropriate for purpose, discipline and context and grouped at an appropriate level e.g. University or discipline and standardised where possible for discipline difference and any other considerations
- metrics should be developed in consultation with stakeholders in line with agreed national and international practice
- metrics should be used for limited and specified purposes
- metrics should be made accessible to internal stakeholders and users where possible through clear communication
- metrics should be retained for as long as required only and updated at regular intervals
- metrics should be used by appropriately trained groups
- metrics should only be used at an individual identifiable level in exceptional circumstances
- metrics should be covered by appropriate ethical and legal protections by which everyone should abide

Individual staff are responsible for ensuring-

- That their individual records (in Pure, ORCID etc) are up to date, complete and accurate
- Amendments and corrections are made as soon as possible
- They use any metrics and/or citation tools responsibly, having undertaken relevant training

- That, where they act as an assessor or review, that they read and understand the principles of DORA
- Challenging, where possible, the inappropriate use of metrics in research assessment

## Basket of metrics

Using a range of metrics allows for a more varied and nuanced assessment into the merit of research than is possible by using one metric alone. It is acknowledged that one metric does not fit all and a one metric approach is not acceptable.

When used correctly, research metrics together with qualitative input give a balanced, multi-dimensional view. Always use both qualitative and quantitative input for a decision and always use more than one research metric as the qualitative input.

	METRIC THEME	METRIC SUB-THEME
QUALIATIVE	REVIEW	Peer review - expert opinion
QUANTITATIVE INPUT	FUNDING (successful)	Grant/Funding awards
		Grant/Funding application
		Grant/Funding income
		Amount of internal funds acquired
	OUTPUTS	Productivity of research outputs - downloads, citations
		h-indices (g and m?)
		visibility of communication channels - views
		Referenced by government, think tanks or non-government organisation reports
		Scholarly outputs
		Citation per output
		Citation output
		Normalised citation index
		Journal Impact factor
		Conference participation/outputs
		Collaborations
		Collaboration impact
		Collaboration citation impact
		Academic collaboration
		Academic collaboration impact
		Patents
		Non-English language journals/publications
		Influence policies
		Author
	RESEARCH IMPACT	Research influence
		Knowledge transfer
		Utilised in public debate
		Referenced by journalists
		Referenced by government debates
	Used as case study evidence	

	Used in teaching materials
	Used by professional organisations
	Built on to improve any kind of performance
	Awards and prizes
	Market share
	Income volume
	Intellectual Property Volume
	Intellectual Property Income
	sustainable Spin Offs
	Spin off related income
	Medical guidelines
ENGAGEMENT/COMMUNITY	Academic network
	Non-academic network
	Expertise transfer
	Event audience numbers
	Exhibition visits
	Networking events
	Scholarly commentary
	As member of corporate board
	As member of government advisory position
	As member of practitioner network
	Paid for research
	As member of journal editorial board
	As member of funder panel
	Collaboration network
	Public Engagement
	Academic Recognition
	Post grad - Research student funding
	Research supervision - how many students/what discipline/what career stage
	Research supervision – how many staff/what discipline/ what career stage
	PhD development
	PhD expert panel member
	Geographical spread of engagement
	Sector spread of engagement
	Training/development days undertaken and for what
	Training/development days provided to PhDs
	Amount of research leave submitted/taken
	Sustained track record of world class research
	Reputation at national and/or international level
	Consultation services
	Research group participation – detail level of involvement
	As member of university initiative/group/committee – detail level of involvement
	As peer assessor of publications
	Engagement with key stakeholders

SOCIAL	Social impact - via Altmetric (services/database)
	Alternative metrics – comments, bookmarks, includes altmetrics, plum metrics, reddit etc
	Media mentions/activity/coverage
	Popular press mentions
	Twitter retweets
	Facebook likes
	Pinterest shares
	Web views
	PDF downloads
	Blog readers
	Podcast listens
SELF REVIEW	Narrative CV – e.g. UKRI's <a href="#">Resume for Research and Innovation</a>

Title	Policy on the Responsible Use of Research Metrics in Research Assessment
Author / Creator	Research & Innovation
Owner	Research & Innovation
Date published / approved	Feb 2023
Version	0.6
Date for Next Review	Feb 2025
Audience	All staff and students
Related	
Subject / Description	Responsible use of metrics in support of research objectives
Equality Impact Assessment	
Section	
Theme	
Keywords	Metrics, responsible, research