

Selected responsible research assessment guidelines – an overview

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Table 1: Description of four responsible research assessment (RRA) guidelines using the *Evaluation Checklists Project Charter's* criteria on 'Appropriateness of Evaluation Content' (Wingate, 2019)

Criteria from <i>Evaluation Checklists Project Charter</i> (Parentheses added to fit a RRA guideline context)	The checklist (RRA guideline) addresses one or more specific evaluation tasks.	The checklist (RRA guideline) clarifies or simplifies complex content to guide performance of evaluation tasks.	Content (of the RRA guideline) is based on credible sources, including the author's experience.	Content is consistent with the Program Evaluation Standards (Yarbrough, Shulha, Hopson, & Caruthers, 2011) and the American Evaluation Association's Guiding Principles for Evaluators (2013) and Statement on Cultural Competence in Evaluation (2011). (Reformulation: The RRA guideline refers to other relevant RRA guidelines.)	Content (of the RRA guideline) does not overtly favor one evaluation approach over others, unless the checklist is intended to support application of a particular evaluation approach.
San Francisco Declaration on Research Assessment (DORA) https://sfidora.org/read/	"a number of recommendations for improving the way in which the quality of research output is evaluated." https://sfidora.org/read/	"Our recommendations therefore focus primarily on practices relating to research articles published in peer-reviewed journals but can and should be extended by recognizing additional products, such as datasets, as important research outputs. These recommendations are aimed at funding agencies, academic institutions, journals, organizations that supply metrics, and individual researchers." https://sfidora.org/read/	"a group of editors and publishers of scholarly journals met during the Annual Meeting of The American Society for Cell Biology (ASCB) in San Francisco, CA, on December 16, 2012. The group developed a set of recommendations, referred to as the San Francisco Declaration on Research Assessment." https://sfidora.org/read/	No	No specific research evaluation approach, e.g., self-evaluation, peer review, cost-benefit analysis, etc.
Leiden Manifesto http://www.leidenmanifesto.org/	"so that researchers can hold evaluators to account, and evaluators can hold their indicators to account." https://www.nature.com/articles/520429a	"We offer this distillation of best practice in metrics-based research assessment" https://www.nature.com/articles/520429a	"We [five authors] therefore present the Leiden Manifesto, named after the conference at which it crystallized [19 th International Conference on Science and Technology Indicators, 2014, Leiden]" https://www.nature.com/articles/520429a	No	"metrics-based research assessment" https://www.nature.com/articles/520429a
Hongkong Principles https://www.wcrif.org/guidance/hong-kong-principles	"to assess researchers for career advancement with a focus on behaviours that strengthen research integrity" https://www.wcrif.org/guidance/hong-kong-principles	"These principles will help research institutions that adopt them to minimise perverse incentives that invite to engage in questionable research practices or worse. [...] explicitly recognise and reward researchers for behaviour that leads to trustworthy research by avoiding questionable research practices" https://www.wcrif.org/guidance/hong-kong-principles	"The Hong Kong Principles for assessing researchers were formulated and endorsed at the 6 th World Conference on Research Integrity, June 2019 in Hong Kong." https://www.wcrif.org/guidance/hong-kong-principles	"We acknowledge all of these valuable contributions and the global leadership of those working on the San Francisco Declaration on Research Assessment (DORA), the Leiden Manifesto, and other initiatives to promote the responsible use of metrics, which have laid the foundations for much of our work [references]. The HKPs are formulated from the perspective of the research integrity community." https://doi.org/10.1371/journal.pbio.300073	No specific research evaluation approach, e.g., self-evaluation, peer review, cost-benefit analysis, etc.
SCOPE https://inorms.net/scope-framework-for-research-evaluation/	"will help those seeking a process for doing research evaluation responsibly." https://thebibliomagician.wordpress.com/2019/12/11/introducing-scope-a-process-for-evaluating-responsibly/	"What practitioners really need is some solid step-by-step guidance as to how to test their existing evaluation procedures or go about establishing new ones. [...] a model we've called 'SCOPE' that we hope will help those seeking a process for doing research evaluation responsibly." https://thebibliomagician.wordpress.com/2019/12/11/introducing-scope-a-process-for-evaluating-responsibly/	SCOPE working group with representatives from research management societies globally: https://inorms.net/research-evaluation-group/	"We've got a shed load of principles now for responsible research metrics. We have DORA, the Leiden Manifesto and the Metric Tide. We also have the many bespoke sets of principles being developed by individual organisations. And they're great. They provide a framework for evaluating responsibly which makes evaluators think and think again about their approaches. However what they don't provide is a how-to guide." https://thebibliomagician.wordpress.com/2019/12/11/introducing-scope-a-process-for-evaluating-responsibly/	No specific research evaluation approach, e.g., self-evaluation, peer review, cost-benefit analysis, etc.

Introduction: Responsible research assessment (RRA) is gaining attention in bibliometrics, research management, open science, research funding, etc. Our study gives an overview of selected RRA guidelines and shows different focal points of the guidelines. The overview is an easily accessible starting point for the many universities and funders interested in RRA (Curry, Stephen et al., 2022; Price, 2022). Furthermore, the overview is an example of how the increasing number of guidelines can be described (for another example, see, Pölonen & Mustajoki, 2021).

Methods: We use the *Evaluation Checklists Project Charter's* criteria on 'Appropriateness of Evaluation Content' to describe four internationally well-known RRA guidelines. The criteria are developed by evaluation experts to "advance excellence in evaluation by providing high-quality checklists to guide practice" (Wingate, 2019).

Criteria (short version, see long version in Table 1)

- identification of evaluation tasks
- guidance for performance of evaluation tasks
- credible background sources
- consistency with/references to other guidelines
- support of a variety of evaluation approaches

RRA guidelines

- *San Francisco Declaration on Research Assessment (DORA)* (2012)
- *Leiden Manifesto* (2015)
- *Hongkong Principles* (2019)
- *SCOPE* (2019)

Results: The four guidelines overlap in their support for RRA but have different foci. *SCOPE* aims to improve the evaluation process, *Hongkong Principles* want to strengthen research integrity, *Leiden Manifesto* stresses accountability, and *DORA* focuses on evaluation of research output. See more results in Table 1.

Discussion: Universities' adoption of RRA guidelines is relatively new, and many institutions have signed DORA or use Leiden Manifesto (Price, 2022). However, focal points addressed by other guidelines may as well be relevant. RRA is not only discussed at the local level. The European Commission has published an agreement on how to reform research assessment (European University Association et al., 2022). The RRAs contribute to the basis for the reform, and the RRAs are used in the tools for the practical implementation of the reform (European University Association et al., 2022, Annexes 3 and 4).

References

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