Most Significant Contributions Statement Guide

Definition

The most significant contributions (MSC) statement is a statement that allows researchers to communicate their achievements to evaluators during assessment decisions. The MSC is a DORA*-aligned evidence-based textual account of the researcher's key achievements, tailored to the audience evaluating it. This guidebook aims to assist researchers in identifying and communicating the quality and impact of their scholarly achievements. A well-crafted MSC will position the researcher's accomplishments in their scholarly context (field of study, research objectives, time demands, and community engagement demands).

Scholarly achievements may include:

- Knowledge engagement, knowledge exchange and dissemination, knowledge translation, professional innovation, entrepreneurship, leadership role in fostering research and scholarship (e.g., community engagement, developing research capacity, partnership with community, partnership with industry, Indigenous scholarship, policy briefs and reports, peer-review publications, exhibitions, models, data, software, books, presentations, speaking at community events, community reports, patents, licenses, commercialization of technology, social entrepreneurship, etc.).

* The University of Calgary signed the Declaration on Research Assessment (DORA) in 2021 to commit to more responsible and inclusive research assessment practices. Major Canadian funders including CIHR, NSERC, SSHRC, CFI and Genome Canada, and several other Canadian universities, have also signed.

The benefits of an effective MSC statement [3,6,9]

a. Highlight an individual's strengths and provide supporting information to position oneself as the ideal candidate for assessment decisions (e.g., hiring, tenure, promotion, grant, award, etc.).
    i. Note: The MSC statement has been included in a variety of competitions for many years. It will also be a core component of a proposed tri-agency harmonized CV, which is currently being piloted in various funding competitions (NSERC; CIHR), and may be tailored specifically to each funding opportunity or sponsor.
b. Discourages overreliance on purely quantitative comparison by incorporating qualitative information with the appropriate quantitative indicators (see examples below) while excluding journal-based metrics (such as journal impact factors) and most author-based productivity metrics (such as H-index and the total number of publications) from the evaluation process.
c. Encourages a holistic and responsible assessment by providing the opportunity to articulate the potentially "hidden" elements of the quality and impact of a diverse range of research outputs including the description of the process of research and the scholarly context in addition to its outcomes (e.g., description and evidence of the relevance for the scholarly field, probability of use/ impact on key intended partners and users, time demands to reach full development, community engagement demands, integrity, legitimacy, and innovation/creativity).

Mapping the quality and impact of your research [1,2,5]

These guiding questions will help you map out your expertise (strengths and qualities), and the scope of influence of your contributions[1,2,5]. Feel free to use only the **subset of the guiding questions** that are most applicable to you.

a. **Relevance:** Describe the objective of your work
    i. What is the importance and value of the research project to theory, knowledge, or understanding? Consider highlighting innovations or creativity in the research processes, and eminence in shaping the field.
    ii. What is the importance and value of the research question to the intended knowledge users?
    iii. How will the research help to shape the research community and benefit others?

b. Integrity:

i. What kind of rigorous methods/design was used?
ii. What kind of systematic review and scrutiny was involved? (for non-peer-reviewed outputs, what were the review criteria?)

c. Identifying beneficiaries:

i. Which individuals or groups benefited? Why are the benefits important to them? What role do the beneficiaries play in your research or its dissemination?

ii. How and at which stage were the benefited group(s) engaged? (research, dissemination, uptake, implementation).

d. Legitimacy:

i. What type of responsible and ethical principles were followed during the research process?
ii. How were the values, concerns, knowledge systems, and perspectives of the intended knowledge users considered and respected?

e. **Demonstrating evidence** using appropriate quantitative and qualitative methods and indicators (see examples below).

i. What is the evidence that the project or activity is likely to/has contributed to impacts beyond the scholarly community (such as a local priority, a key policy or strategy, or intellectual property)?
ii. If the objective of the project was learning and building scientific capacity or societal capacity, how did it change knowledge, attitudes, or skills?
iii. What recognition or feedback did the work receive from the public and external bodies (see examples below)?
iv. What recognition or feedback did the work receive from the intended knowledge users/ beneficiaries?

Discipline-appropriate indicators

a. Qualitative indicators, examples[8]**:**

- **Recognition from peers**: Quotes from (open) peer-review reports; acknowledgment of a publication or report.
- **Use by the public:** Explicit references in professional and public domains: Quotes from explicit references in scholarly literature, professional and general books, edited volumes, magazines, forums, debates, websites, and other media, to research products or outputs. Citations in government documents and commissioned reports
- **Use in education:** the use or impact of research in primary, secondary, and tertiary education (especially outside the applicant's own institution).

- **External recognition[3,7]:**
    - **Academic prizes:** research grants awards, prizes awarded to individuals, or collaborative research projects.
    - **Financial and material support by society:** Funding and material resources allocated to research projects and researchers by civil-society funds, organizations, and institutions.
    - **Public prizes:** non-academic recognition for scholarly achievements, e.g. prizes or honors.
    - **Secondary appointments** within civil-society organizations: appointments of researchers to organizations and institutions that are conceptually linked to the research or its impact (including requests for consultancy/advice).

b. Quantitative indicators, examples[4]**:**

- **Article-level indicators** measure the scholarly impact of individual publications based on the count of the citations received. Article-level indicators include but are not limited to the number of citations, field-normalized citation impact, and top X% highly cited paper. Please note that citation counts vary by the database used because the coverage of the database varies.
- **Altmetrics indicator:** Altmetrics is an alternative to more traditional citation-based metrics. Compared to traditional bibliometrics based on citation counts, Altmetrics assesses research impact based on activities on social media and other online platforms. Altmetrics include but are not limited to the number of mentions in social media (e.g., X (formerly Twitter), Meta, Wikipedia, etc.), the number of citations by policy documents, the number of citations by patents, and the number of mentions in traditional news reports.

How to write contributions into a narrative

A strong MSC statement will highlight the most distinctive and relevant accomplishments and outputs for the opportunity that you are applying for. Write narrative arguments that answer the reflective questions below to showcase your expertise and the influence of your outputs in the context of your research objectives. Use active words (led, managed, developed)[9], and make sure your role is clear (e.g., conceptual formulation, design, analysis, leadership). Tailor the key messages concerning the requirements of the application and the type of audience that will evaluate it, including their priorities, requested format, and preferred language. Different audiences will be interested in different perspectives of scholarly achievements and their impact. Evidence your arguments with qualitative methods supported by discipline-appropriate quantitative indicators (when applicable) while moving away from using the journal impact factor and the H-index.

Tips

1. A DORA-aligned review process will recognize the various advantages of the chosen publication venue (e.g., considering the journal's readership) instead of favoring journal prestige.
2. Meaningful evaluation of achievements requires an understanding of the research environment [2] including the varying disciplinary and data settings in which research is done. For example, if your work is multidisciplinary or transdisciplinary, consider explaining the challenges that are associated with conducting research in your environment in terms of the knowledge, skills, time commitment, and collaborations that were involved. Also, consider highlighting the challenges of reporting the findings of such research, since each discipline may expect a different format or venue for research outputs.

Additional resources

CIHR guidance for applicants
CIHR guidance for reviewers
CIHR FAQs about DORA
CIHR Examples of contributions and impacts by research pillar

References

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2. Ofir, Z., Schwandt, T., Duggan, C., and McLean, R. (2016). Research Quality Plus: A Holistic Approach to Evaluating Research. IDRC, Canada; Research Quality Plus Evaluating Research Differently
3. Strinzel, M., Brown, J., Kaltenbrunner, W., de Rijcke, S., & Hill, M. (2021). Ten ways to improve academic CVs for fairer research assessment. *Humanities and Social Sciences Communications, 8*, 1-4.
4. Wildgaard, L., Schneider, J. W., & Larsen, B. (2014). A review of the characteristics of 108 author-level bibliometric indicators. *Scientometrics, 101*, 125-158.
5. Impact Literacy Workbook
6. Luxemburg National Research Fund –Narrative CV workshop
7. Strategy Evaluation Protocol 2021-2027
8. UNESCO Recommendations on Open Science
9. Narrative CVs | Research and Innovation | Imperial College London
10. Tri-Agency Harmonized CV - CIHR (cihr-irsc.gc.ca)

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