Study: Anonymous review of proposals

Background

In the STEM research sector, there is a significant disparity in the number of successful proposals to Australia's competitive grants programs from women and men [1]. This trend in part reflects the gap in numbers of researchers between genders [2] but is also influenced by unconscious bias in grant selection processes [3, 4, 5, 6].

Removing identifying information from proposals, such as names, affiliations and gender pronouns, has been found to reduce gender bias, as well as cultural and other biases [7, 8]. For example, NASA carried out a multi-year trial of dual-anonymous evaluation of proposals for time on the Hubble Space Telescope (HST) [7]. They adopted a system in which the names of the reviewers and investigators were made known to each other only after the review was complete. For the first time in the 18 years, proposals with female principal investigators had a higher success rate than those led by men. A similar trial by the Irish Research Council recently led to an immediate 10% increase in women recipients of postdoc awards [8]. Other 'non-anonymous' measures to shift the focus away from the scientists and towards the science case have had little effect [9]. Dual-anonymous review is considered the most effective form of peer-review. It has the potential to level the playing field, not just for women but for marginalised groups and between new and established researchers [7, 8, 10].

Dual-anonymous review has been adopted by several organisations worldwide. Examples include Space Telescope Science Institute for allocating HST time, the Atacama Large Millimeter/submillimeter Array (ALMA) and most recently, in 2019, the European Southern Observatory (ESO).

This year, the CSIRO Astronomy and Space Science is participating in an Australian national study to examine the effects of anonymised review on reducing gender bias in grant programs.

Overview of the research project

The Office of the Women in STEM Ambassador at the University of New South Wales (UNSW) is conducting a study to investigate the effects of anonymised review of research proposals on reducing gender bias in grant programs.

Several Australian research organisations and funding bodies, including CSIRO Astronomy and Space Science, have agreed to participate in the study. First, the study will examine data records from past proposal rounds for any gender (and other) biases, which will act as a baseline for the study. Then, the outcomes of the anonymised review of proposals will be compared to the baseline to measure any differences in proportions of male-female resource allocations. The research aims to provide insights into the underlying factors influencing the disparity in Australia's competitive STEM grant programs and recommend potential solutions for more equitable processes in the future.

As a first measure, CSIRO and the Time Allocation Committee (TAC) will implement the following procedures for proposals for the 2020OCT semester:

- Remove the names of the principal investigator (PI) and co-investigators from the front page of the proposal distributed to the TAC reviewers.
- Remove all the affiliations and e-mail addresses of PIs and co-investigators.
- List all investigators in the team in random order on the last page of the proposal.

These processes aim to shift the focus away from the scientists and towards the proposed research to reduce bias—specifically bias related to knowledge of the PI and investigator affiliations.

Principal investigators submitting proposals for the 2020OCT semester will be invited to participate in the study. Participation is voluntary and will not affect the outcome of your proposal in any way. If you agree to participate, some data about you (the PI) and the result of your proposal will be used in the study in a format that ***will not identify you or any team members***. You will soon be provided with more detailed information and a consent form to indicate whether you would like to participate in the study.

References

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