

ERA Consultation – March 2011

Australian Research Council

Excellence in Research for Australia

Submission Contact Details (required)*

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*Anonymous submissions will not be considered.

1. ERA 2010 Discipline Matrix

The ERA 2010 Discipline Matrix is available at
www.arc.gov.au/xls/ERA2010_discipline_matrices.xls.

Please indicate any changes you would recommend to the indicator set which was used for relevant disciplines in ERA 2010. Please explain the reasons for any recommended changes.

Note that any additional proposed indicators should be discussed in the general comments section below. This question should be used to recommend any changes to the existing indicator set used for each discipline.

Response

While conference presentations do play a central role in knowledge dissemination within the discipline we do not believe that published conference abstracts are a useful quality indicator in most areas of Psychology. The exceptions would be in those areas most directly related to computer science, e.g. mathematical psychology and cognitive science where the publications associated with The Cognitive Science Society Conference and the Neural Information Processing Society conference are already listed as outlets.

2. Cluster Structure

Please indicate any changes you would recommend to the existing cluster structure indicated in the Discipline Matrix, i.e. any Field of Research codes which should be relocated to another cluster. Please explain the reasons for any recommended changes.

Response

The Psychology Foundation of Australia is unconvinced of the need for FOR 1702. The bulk of the work categorised there is Cognitive Psychology and would be more appropriately



ERA Consultation – March 2011

placed under 1701. A small amount of the remainder is interdisciplinary work with outlets within the other home disciplines. There seems to be little value in renaming the sub-areas of psychology as Cognitive Science since in most cases the work is conducted within Psychology Schools by people with training in Psychology. A more appropriate way to retain Cognitive science as an identity would be to create a 6 digit FOR code under 1701 for Cognitive Psychology and Cognitive Science.

The major Psychology research area of Learning, should be moved back to its disciplinary base under 1701, with only education-related applications of learning theory being represented in Education. The bulk of the basic work on learning falls within the ambit of Psychology and this should be reflected in the FOR codes.

3. Low Volume Threshold

A. Output types for inclusion in the low-volume threshold calculation

Please indicate which option(s) you believe most appropriate for the output types to be used in the low-volume threshold calculation:

- a. No change – calculation based on indexed journal articles for citation analysis disciplines, and all weighted outputs for peer review disciplines;
- b. Include the sum of conference publications and indexed journal articles in the threshold calculation for specified information and computer science disciplines;
- c. Exclude conference publications from the threshold calculation for specified social sciences and humanities disciplines.

Note: options (b) and (c) may both be selected.

Response and additional comments

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B. Four-digit units of evaluation

Subject to your response to the outputs for inclusion at (A) above, please indicate which option you believe most appropriate for the low-volume threshold for ERA 2012 four-digit units of evaluation:

- a. No change – threshold remains at 50 apportioned indexed journal articles for disciplines using citation analysis, and 30 apportioned weighted outputs (including 5:1 weighting for books) for disciplines using peer review;
- b. Raise threshold for peer review disciplines to 50 apportioned weighted outputs (including 5:1 weighting for books), to align with the threshold for disciplines using citation analysis.

Response and additional comments

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ERA Consultation – March 2011

C. Two-digit units of evaluation

Subject to your response to the outputs for inclusion at (A) above, please indicate which option you believe most appropriate for the low-volume threshold for ERA 2012 two-digit units of evaluation:

- a. No change – threshold remains at 50 apportioned indexed journal articles for disciplines using citation analysis, and 30 apportioned weighted outputs (including 5:1 weighting for books) for disciplines using peer review;
- b. Raise threshold for peer review disciplines to 50 apportioned weighted outputs (including 5:1 weighting for books), to align with the threshold for disciplines using citation analysis;
- c. Proportionately raise threshold (with respect to the four-digit threshold) for peer review disciplines to 100 apportioned weighted outputs (including 5:1 weighting for books), and 100 indexed journal articles for disciplines using citation analysis;
- d. Do not evaluate at the two-digit level.

Response and additional comments

4. Researcher Eligibility

Please indicate which option you believe most appropriate for fractional full-time equivalent staff to be eligible for submission to ERA 2012:

- a. No change – definition remains as in ERA 2010;
- b. Restrict definition by including a by-line requirement for fractional full-time equivalent staff similar to the existing casual staff by-line requirement;
- c. Restrict definition by including a minimum 50% fractional appointment for fractional full-time equivalent staff to be included in ERA submission;
- d. Restrict definition by including a requirement that fractional full-time equivalent staff need to have been employed for a period of 12 months or more at the ERA 2012 census date to be included in ERA submission.

Response and additional comments

b. It is our view that for work to be recognizably attributed to an AOU it must carry the AOU's by-line. We believe it is inappropriate to exclude work produced by an AOU and therefore we do not support the more restrictive definitions (c & d) which would result in such exclusion. However, it does seem desirable to also require a minimum period over which the researcher has been associated with the University. A period of one year of past association seems adequate to ensure a real commitment to the institution..



ERA Consultation – March 2011

5. Reference Period for income, applied and esteem measures

Please indicate which option you believe most appropriate for the reference period for income, applied and esteem measures in ERA 2012:

- a. No change – reference period remains three years, being the final three years of the six-year outputs reference period;
- b. Expand reference period to six years, consistent with the outputs reference period.

Response and additional comments

b. We believe it is desirable to have a uniform period of evaluation for all metrics used in the assessment so that it is clear that the evaluation considers all aspects of performance included within the time period of the review.

6. Patents, plant breeder's rights and registered designs

Please indicate which option you believe most appropriate for the eligibility requirements for patents, plant breeder's rights and registered designs:

- a. No change – these measures must have been granted within the reference period to the submitting institution, an institution-owned subsidiary and/or a spin-off company that is associated with the institution;
- b. Expand eligibility to allow for the submission of measures granted within the reference period to eligible researchers submitted by the institution;
- c. Expand eligibility to allow for the submission of measures not yet granted but applied for within the reference period.

Note: options (b) and (c) may both be selected.

Response and additional comments

7. Publication of data

Please indicate which option you believe most appropriate for the publication of data from the ERA process:

- a. No change – the ARC continues to publish national- and discipline-level data but no institution-level information other than final ratings. Institutions can continue to choose whether to share their data with others;
- b. Expand reporting to include institutional and/or unit of evaluation level data.

Response and additional comments

a. No change.



ERA Consultation – March 2011

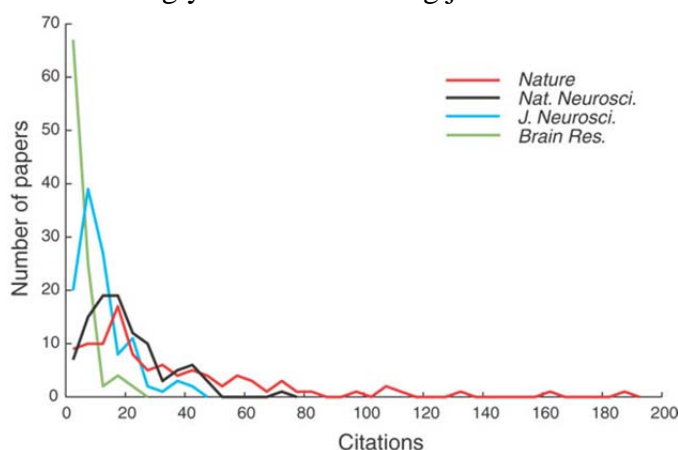
8. General comments

Please indicate here any other recommendations for the future development of ERA.

We appreciate this opportunity to provide input to the ERA journal ranking review and would like to make some specific recommendations for the necessary revision of the list.

While we understand that impact factors have been an important driver of publishing behaviour and will therefore have a central role in any journal ranking system, it is appropriate at the outset to note that we are not strongly in favour of using journal level

quality rankings as a proxy for paper level quality. The impact factors that drive such rankings are typically based on highly skewed citation distributions with modes and medians that vary insignificantly across journals. The figure on the right (Nature Neuroscience **6**, 783 (2003) doi:10.1038/nn0803-783) indicates the nature of the problem. Impact factors, being based on averages are highly biased by a few prolifically cited articles but the implication is that all articles in the journal carry the same high quality imprimatur. This is incorrect and therefore highly misleading.



A better way to establish the standing of a journal within a field is to broadly poll the members of that field to see if there is an established hierarchy. In most fields there are long-standing archival journals that occupy a significant and central place in the literature. These journals do not always have high impact factors but the fields depend on them. A better method for evaluating this type of journal status is provided by www.eigenfactor.org. To quote from the website: “The Eigenfactor™ score of a journal is an estimate of the percentage of time that library users spend with that journal. ... In addition to providing direct estimates of how often journals are likely to be used, this approach offers a number of advantages. As mentioned above, the Eigenfactor ranking system accounts for difference in prestige among citing journals, such that citations from Nature or Cell are valued highly relative to citations from third-tier journals with narrower readership. The Eigenfactor score (EF expressed as a percentile) also adjusts for differences in citation patterns among disciplines.”

The methods employed for this calculation are described here:

<http://www.eigenfactor.org/methods.htm> and the data used is a cross-citation matrix extracted from the Thompson Scientific Journal Citation Reports dataset.”



ERA Consultation – March 2011

In Psychology within Australia we are fortunate to have both the data from eigenfactor.org and also a list indicating journal status nationwide reflecting a nationwide poll of all schools of Psychology taken in preparation for the initial journal ranking. Following the final call for comment on the draft list a number of significant changes occurred within the rankings of Psychology journals that have distorted the rank order produced by the discipline itself. These distortions have a number of significant impacts on publishing behaviour, as we would have anticipated, but the one of primary concern here is that journals, highly regarded in the field internationally, are in some cases in categories much lower than their appropriate position and as a consequence Australian psychological science is now being directed towards lower status journals simply because they have a higher ERA rank. This is bad for the international presence of Australian science and needs to be remedied.

Our primary request is simple. We ask that the body auditing the ERA rankings (and we recommend the Australian Psychological Society for this role) ensure that those journals placed into ranks by the discipline nationally are returned to their recommended positions so that high quality research is directed to locations agreed to be high quality within the discipline.

In particular, those journals that were removed from the A* category in the final versions of the list (Behavioral Neuroscience: EF = 86.69, Neurobiology of Learning and Memory: EF=79.38, Journal of Vision: EF=86.98 and Vision Research: EF 92.01) should be returned to that location. There are several journals in the current A* list with EF scores in the 80s and thus the journals that were removed were not aberrant in the suggested rankings. Indeed, there is one journal in the current A* list with an EF = 25.62, a result we suggest is aberrant. While detailed cases could be made for each of these journals a revision along the lines we have suggested should render that unnecessary.

The journals need to be placed appropriately. To do otherwise will ensure that those researchers in Psychology who have targeted the premier journals (as agreed by all Schools of Psychology in the country) will appear to have substantially weaker track records than those who have not been successful in publishing in those locations. This would be a perverse outcome in an exercise that is meant to assess the relative quality of research performance within the discipline and we strongly urge its immediate correction. We have only provided examples relating to the A* category but we would recommend the Eigenfactor analysis to be part of the consideration throughout the list during the audit.

In general a single ranked list will always be problematic for an interdisciplinary science like Psychology. Interdisciplinary journals will inevitably vary in their status within the contributing research fields, often in proportion to their deviation from the main thrust of the discipline.

We request that the auditing body that is chosen should try to ensure that the final rankings reflects the highest status appropriate for the contributing disciplines. This leads to a secondary request that the chosen auditing body should solicit input from all schools of Psychology within the country on perceived shortcomings of the current journal rankings prior to finalising their revisions.