



Australian Government
National Health and Medical Research Council
Australian Research Council



Authorship

A guide supporting the *Australian Code for the Responsible Conduct of Research*

Publication details

Publication title:	Authorship: A guide supporting the <i>Australian Code for the Responsible Conduct of Research</i>
Published:	2019
Publisher:	National Health and Medical Research Council
NHMRC Publication Reference:	R41C
ISBN Online:	978-1-86496-034-1
Suggested citation:	Authorship: A guide supporting the <i>Australian Code for the Responsible Conduct of Research</i> . National Health and Medical Research Council, Australian Research Council and Universities Australia. Commonwealth of Australia, Canberra

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1. Introduction

This guide supports the implementation of the [Australian Code for the Responsible Conduct of Research](#) (the Code), which articulates the broad principles and responsibilities that underpin the responsible conduct of Australian research.

In particular, this guide is intended to assist institutions and researchers to adhere to relevant principles of the Code, including:

- Principle 4, ‘Fairness in the treatment of others’, which requires researchers to ‘give credit, including authorship where appropriate, to those who have contributed to the research.’
- Principle 6, ‘Recognition of the right of Aboriginal and Torres Strait Islander Peoples to be engaged in research that affects or is of particular significance to them’, which requires researchers to credit the contributions of Indigenous people and knowledge.

This guide aims to assist institutions to develop and maintain authorship policies that facilitate the recognition of significant intellectual or scholarly contribution to a research output and reflect that authorship:

- i. must be an honest reflection of contribution to research
- ii. must be assigned fairly, and consistently with established disciplinary practice
- iii. must be communicated clearly and transparently between contributors to the research.

The Code and this guide apply to all research conducted under the auspices of Australian institutions. These institutions vary in size, maturity, experience and organisational structure. They range from large and complex universities, to small privately funded institutes. Accordingly, it is acknowledged that different institutional policies and processes are capable of fulfilling the aim of this guide and attempts have been made to ensure that there are appropriate options for flexibility in its application.

This guide also aims to assist those involved in research to understand and apply best practice in determining and agreeing on authorship.

2. Authorship criteria

An author is an individual who:

- has made a significant intellectual or scholarly contribution to research and its output, and
- agrees to be listed as an author.

This section sets out further detail on authorship criteria.

2.1 What is a significant intellectual or scholarly contribution?

While authorship conventions vary across disciplines, a significant intellectual or scholarly contribution must include one and should include a combination of two or more¹ of the following:

- conception and design of the project or output
- acquisition of research data where the acquisition has required significant intellectual judgement, planning, design, or input
- contribution of knowledge, where justified, including Indigenous knowledge
- analysis or interpretation of research data
- drafting significant parts of the research output or critically revising it so as to contribute to its interpretation.

¹ This is the minimum threshold for authorship, noting that some journals, disciplines, and institutions may require a higher threshold.

Authorship must not be attributed when an individual has not made a significant intellectual or scholarly contribution to a research output and, as a general rule, all those who have made a significant intellectual or scholarly contribution should be named as authors. If an individual is unwilling to be accountable for their contribution by being named as an author, their contribution should generally not be included in the research output. Institutional policies should clarify the circumstances in which these contributions should be included and how inclusion of such contributions should be handled, and require that all named authors must have confidence in the integrity and accuracy of these contributions.

Authorship should not be attributed solely on the basis of:

- the provision of funding, data, materials, infrastructure or access to equipment
- the provision of routine technical support, technical advice or technical assistance
- the position or profession of an individual, such as their role as the author's supervisor or head of department ('gift authorship')
- whether the contribution was paid for or voluntary
- the status of an individual who has not made a significant intellectual or scholarly contribution being such that it would elevate the esteem of the research ('guest authorship').

For a person to claim, demand, or accept authorship without having made a significant intellectual or scholarly contribution is a breach of the Code. Similarly, it is a breach of the Code for a person to offer or attribute authorship to someone who has not made a significant intellectual or scholarly contribution.

Students and junior researchers who have made a significant intellectual or scholarly contribution are entitled to authorship, notwithstanding that they may have been more closely supervised.

Sometimes the editor of a significant collective work or anthology of research papers has made contributions analogous to those of authors and, in such cases, similar criteria may apply to 'editor' as to 'author'. However, the term 'editor' should be applied only to a person who has played a significant role in the intellectual shaping of a publication.

2.2 What does it mean to be accountable for the research output?

All listed authors are collectively accountable for the whole research output. An individual author is directly responsible for the accuracy and integrity of their contribution to the output. Authors should have confidence in the accuracy and integrity of the contributions of their co-authors.

3. Responsibilities of institutions

This section provides guidance on the responsibilities that institutions have in relation to authorship.

3.1 Design and promote institutional policies

Institutions that conduct research must have policies designed to ensure the fair and honest attribution of authorship, and minimise and resolve disputes about authorship. Institutional policies should encourage researchers' commitment to increase transparency in authorship assignments or attribution, and should be consistent with this guide.

Under the Code, institutions have the responsibility to:

- R3 Develop and maintain the currency and ready availability of a suite of policies and procedures which ensure that institutional practices are consistent with the principles and responsibilities of the Code.*

The institutional policies should include guidance on:

- criteria used to determine who is eligible to be an author and their responsibilities
- the use and applicability of discipline-specific guidelines
- dealing with authorship disputes (see Section 5).

The institutional policies should apply to the authorship of all research outputs (including non-traditional research outputs) and the attribution of authorship in other documents related to research, such as research proposals, grant applications, reports for funding agencies, tenders, patents and patent applications, etc.

The institutional policies should also apply to web-based publications and applications, including professional blogs and any form of authored research output that is made publicly available.

Institutions should ensure that their authorship policies are readily accessible via the institution's website.

Institutions may develop or adopt discipline-specific guidelines that are consistent with this guide, the institutional authorship policies and established disciplinary norms.

3.2 Provide training for researchers

Institutions must provide ongoing training and education that promotes and supports responsible research conduct and assists all researchers and those in other relevant roles to follow the institution's authorship policies and other relevant disciplinary-specific policies.

Under the Code, institutions have responsibilities to:

- R4 Provide ongoing training and education that promotes and supports responsible research conduct for all researchers and those in other relevant roles.*
- R5 Ensure supervisors of research trainees have the appropriate skills, qualifications and resources.*

4. Responsibilities of researchers

This section provides guidance on the responsibilities that researchers have in relation to authorship. Researchers should also refer to their institutional policies and the Code.

4.1 Ensure appropriate and fair attribution of authorship

The corresponding author has primary responsibility for ensuring that all contributors to the research output are properly recognised regardless of their position or any changes in their position or role. All authors should alert the corresponding author to any author or contributor who may have been inadvertently omitted. References in this paragraph should be interpreted to include contributions from student and junior researchers.

Under the Code, researchers have the responsibility to:

- R25 Ensure that authors of research outputs are all those, and only those, who have made a significant intellectual or scholarly contribution to the research and its output, and that they agree to be listed as an author.*

'Ghost authorship'—where an individual such as a research assistant or industry researcher meets the criteria for authorship but is not acknowledged as an author—is not an acceptable practice, and is inconsistent with the principles and responsibilities of the Code and this guide.

A person who qualifies as an author must not be included or excluded without their written agreement. This written agreement should be provided by each author in a timely fashion. A record of each written agreement must be kept.

If an author is deceased, this should be noted in the publication.

4.2 Formalise authorship arrangements

All researchers should discuss authorship at an early stage in the research, as well as throughout the research project. Where there is more than one author, it is good practice to have an authorship agreement in place before the commencement of writing up a research project. An authorship agreement does not need to be a formal legal document. It can be in the form of emails, a transcript of an online discussion or other similar evidence of agreement.

The authorship agreement should include:

- identification of those who will be recognised as the authors of the research output
- a description of the contribution that each author has made (or will make) to the research output
- an indication of the order in which the authors appear. The agreed order of authors should be consistent with any applicable disciplinary norms and publication requirements
- identification of at least one corresponding author who is responsible for communication with the publisher and managing communication between the co-authors.

It is the responsibility of the corresponding author to maintain records of the authorship agreement. Where the corresponding author is not from the same institution as other listed authors, authors are encouraged to keep their own records.

As a project evolves, it is important to continue to discuss authorship, especially if new people become involved in the research and make a significant intellectual or scholarly contribution. The corresponding author should retain a record of any agreed changes to the authorship of a research output.

4.3 Acknowledge contributions other than authorship

Contributions to research that do not meet the criteria for authorship should be acknowledged where appropriate; for example, contributions from individuals providing technical support. It is also good practice to recognise the contribution of research infrastructure.

Under the Code, researchers have the responsibility to:

R26 Acknowledge those who have contributed to the research.

Researchers intending to publish Indigenous knowledge obtained through sources including unpublished manuscripts, or audio or video recordings, should seek approval from the Indigenous people involved in the project or the community from which that knowledge originates and the individual and collective contributors of the knowledge should be acknowledged, as appropriate.²

As a general rule, researchers should obtain permission from named contributors before acknowledging them in research outputs, since acknowledgement may imply a contributor's endorsement of the research output.

4.4 Be accountable for the research output

Although authors are accountable for the whole research output, the responsibilities associated with this accountability are dependent on the extent and type of contribution made.

2 <https://www.nhmrc.gov.au/research-policy/ethics/ethical-guidelines-research-aboriginal-and-torres-strait-islander-peoples>

An author is responsible for ensuring the accuracy and integrity of their direct contribution to the research output. To achieve this, authors must adhere to the principles and responsibilities of the Code.

Authors are also responsible for taking reasonable steps to ensure the accuracy and integrity of the contributions of all other co-authors. This means that authors should, where feasible, be able to identify which co-authors are responsible for specific other parts of the work and that they should raise any concerns about the accuracy and integrity of the research before submission or publication.

If an individual does not agree to be accountable for their contribution, the contribution should not be included in the research output.

Following publication, all authors must also ensure that any concerns about the accuracy or integrity of any part of the output are appropriately responded to. This may mean providing all necessary evidence to demonstrate the accuracy and integrity of their contribution, or seeking such evidence from the other co-authors. It may result in correcting the public record by way of erratum or retraction.

If an author is deceased (or cannot be contacted after reasonable attempts have been made), all the co-authors must still have confidence in the accuracy and integrity of that author's contribution. This may require consideration of the underlying data and methodology.

4.5 Approve research output

Authors must approve the research output before its submission for publication and, in doing so, agree to be accountable for it. Authors must also approve the final version before publication. The final approval process may be coordinated by the publisher, often through the corresponding author.

The corresponding author must keep written records that confirm that approval has been obtained from all authors.

If an author is deceased, or after all reasonable efforts that have been made to establish contact have failed and have been documented, publication can proceed, provided that there are no grounds to believe that this person would have objected to being included as an author. In such instances, it may be appropriate for an institution to provide written agreement for the inclusion of an author.

4.6 Engage in relevant training

Researchers should engage with relevant training and education provided by or through their institution and should seek out other relevant training opportunities when they perceive a knowledge gap.

Under the Code, researchers have the responsibility to:

R16 Undertake and promote education and training in responsible research conduct.

5. Resolution of disputes

The institutional authorship policies should include a mechanism for raising concerns and the fair and timely resolution of disputes about authorship. The policies should include guidance on managing disputes such as those involving:

- power imbalances between researchers
- researchers who are unwilling to accept authorship and/or accountability for their contribution, obstruct progress of a research project or output, or fail to cooperate with co-authors
- researchers from multiple institutions.

Researchers must treat fellow researchers and others involved in the research fairly and with respect (see P4 of the Code). Researchers should follow their institution's process to resolve any disputes that arise between authors.

The parties to the dispute should maintain records of agreements reached through direct dialogue or mediation.

6. Breaches of the Code

Institutions should manage and investigate concerns or complaints about potential breaches of the Code in accordance with the *Guide to Managing and Investigating Potential Breaches of the Australian Code for the Responsible Conduct of Research* (the Investigation Guide).

Examples of breaches of the Code that are related to authorship (see also Section 2.1 of the Investigation Guide) include, but are not limited to:

- crediting authorship to or accepting authorship from individuals who do not meet the criteria for authorship (for example, honorary, gift or guest authorship)
- failing to ascribe authorship to individuals where those individuals meet the requirements of authorship (for example, ghost authorship)
- attributing authorship to individuals without their consent
- publishing research without the final approval of the attributed authors
- failure to comply with an authorship agreement
- making false claims about the authorship in a grant application.

Researchers should be aware that the denial of authorship may raise the potential for plagiarism.

When managing and investigating a potential breach of the Code regarding authorship, institutions should consider the extent to which each author met their authorship responsibilities.

7. Definitions

Author	An individual who has made a significant intellectual or scholarly contribution to research and its output and who has agreed to be listed as an author.
Corresponding author	The author who is, as agreed by all co-authors, responsible for communication between the publishers, managing communication between the co-authors and maintaining records of the authorship agreement.
Research Output	A research output communicates or makes available the findings of research that may be in hardcopy, electronic or other form. Examples of research outputs include journal articles, book chapters, books, conference papers, reports, datasets, patents and patent applications, performances, videos and exhibitions.

Additional resources

- [Committee on Publication Ethics \(COPE\), 'What constitutes authorship?'](#)
- [Ethical guidelines for research with Aboriginal and Torres Strait Islander Peoples \(NHMRC\)](#)
- [Guidelines for Ethical Research in Australian Indigenous Studies \(AIATSIS\)](#)
- [International Committee of Medical Journal Editors \(ICMJE\), 'Defining the Role of Authors and Contributors'](#)

