

Foundations in Ethical Research GRAD214: Winter/Spring 2024

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Session 3





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How do you feel about writing scientific publications?



Authorship and Publication



Authorship and Publication

- ❑ Authorship
- ❑ Elements of a responsible publication
- ❑ Practices that should be avoided

Authorship

- ❑ Names at the beginning of a paper
- ❑ Who conducted the research
- ❑ Who gets credit
- ❑ Importance
- ❑ Corresponding or Primary Author



- ❑ Contribution
 - ❑ Involved in conception and design
 - ❑ Data collection and interpretation
 - ❑ Drafting of publication
 - ❑ Approved the final draft

International Committee of Medical Journal Editors (ICMJE)

- ❑ “Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- ❑ Drafting the work or revising it critically for important intellectual content; AND
- ❑ Final approval of the version to be published; AND
- ❑ Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.”



ICMJE continued



“In addition to being accountable for the parts of the work he or she has done, an author should be able to identify which co-authors are responsible for specific other parts of the work. In addition, authors should have confidence in the integrity of the contributions of their co-authors.

All those designated as authors should meet all four criteria for authorship, and all who meet the four criteria should be identified as authors. Those who do not meet all four criteria should be acknowledged”



NIH Guidelines



“...the privilege of authorship should be based on a **significant contribution to the conceptualization, design, execution, or interpretation of the research**, as well as to the **drafting or substantively reviewing or revising the research article**.

Authorship also conveys responsibility for the study.

Individuals who do not meet these criteria but who have assisted the research by their encouragement and advice or by providing space, financial support, reagents, occasional analyses or patient material should be acknowledged in the text but not be authors.”



NIH Source book Guide lines

General Guidelines for Authorship Contributions

Contributions

Authorship? (■ yes; ■ no)

Comments

Design & interpretation of results	original idea, planning & input		An idea alone may not warrant authorship, unless highly original & unique
	other intellectual contribution		Yes, but assuming active involvement
Supervisory role	supervision of the project		Yes, but assuming active involvement
	training, education		
	mentoring of 1st author		No, unless substantive contribution made to study
Administrative & technical support	resources: \$		Acknowledgements yes, authorship no
	resources: animals, reagents		No if already published; yes if novel
	resources: patients		Maybe, depending on circumstances
Data acquisition	original experimental work		
	technical experimental work		No if routine; yes if novel methods added, or specific role, e.g., statistics, imaging etc.
	data analysis (assays)		Yes, unless only very basic
	data analysis (statistics)		Yes, unless only very basic (t-tests e.g.)
Writing & other	drafting of manuscript		Warrants first authorship
	reading/ commenting on manuscript		Substantial feedback can be acknowledged
	none		Includes honorary authorship for lab chiefs, celebrities etc.

Committee on
Scientific Conduct
and Ethics (CSCE)

Authorship by PNAS

“...limited to those who have contributed substantially to the work. The corresponding author must have obtained permission from all authors for the submission of each version of the paper and for any change in authorship.

...Some coauthors have responsibility for the entire paper as an accurate, verifiable report of the research. These include coauthors who are accountable for the integrity of the data reported in the paper, carry out the analysis, write the manuscript, present major findings at conferences, or provide scientific leadership to junior colleagues.

Coauthors who make specific, limited contributions to a paper are responsible for their contributions but may have only limited responsibility for other results. While not all coauthors may be familiar with all aspects of the research presented in their paper, all collaborators should have in place an appropriate process for reviewing the accuracy of the reported results.”

PNAS continued



Authors must indicate their specific contributions to the published work. **This information will be published as a footnote to the paper.**

An author may list more than one contribution, and more than one author may have contributed to the same aspect of the work.

Examples of designations include:

- ❑ Designed research
- ❑ Performed research
- ❑ Contributed new reagents or analytic tools
- ❑ Analyzed data
- ❑ Wrote the paper



UCSF Decision Lab



CReditT (Contributor Roles Taxonomy)

<https://credit.niso.org/>



Authorship Responsibility

- ❑ The author list establishes credit, but also accountability
- ❑ Must bear responsibility for errors, OR
- ❑ Explain why, who was responsible for that part of the project?

Which of the following is true for you?

I have published a first author paper

0%

I have shared first authorship on a publication

0%

I have been listed as an author on a publication (not first author)

0%

I have been acknowledged on a publication

0%

None of the above

0%



First author

- ❑ Performed experiments and collected data
- ❑ Interprets results
- ❑ Writes (at least) the first draft
- ❑ May be shared



Activities not Indicating Authorship

- ❑ Providing funding
- ❑ General supervision of a research group
- ❑ General administrative support
- ❑ Writing assistance
- ❑ Technical editing
- ❑ Language editing
- ❑ Proofreading
- ❑ Providing laboratory space
- ❑ Furnishing a sample used

Authorship–*What Doesn't Count*

- Supervision of first author, Chair of dept., Chief of division, director of laboratory, etc.
- Statistical advice (alone)
- Data entry, processing, or management
- Providing or helping obtain space, money, staff, or other resources

Authorship and collaboration

How can these types of disputes be avoided or prevented?

Nobody has responded yet.

Hang tight! Responses are coming in.



Elements of a Responsible Publication

- Abstract
- Introduction
- Methods
- Results
- Discussion
- Notes, bibliography, and acknowledgements
- Disclosures

Special Considerations for Publications

- ❑ Unpublished citations
- ❑ Sharing of materials
- ❑ COIs
- ❑ IRB/ACUC approvals
- ❑ Image integrity
- ❑ Dual-Use research

Practices That Should Be Avoided

- ❑ Non-authors
- ❑ Salami publications
- ❑ Duplicate publications
- ❑ Premature public statements



Non -Authors

- ❑ Honorary/Guest/Gift authors
 - ❑ Dilutes the credit due
 - ❑ Inflates credentials
- ❑ Ghost authorship
 - ❑ Misleads readers



Duplicate Submission/Publication

- ❑ Duplicate Submission- submit the same manuscript, in the same or different languages, simultaneously to more than one journal
 - ❑ Disagreement when multiple journals claim the right to publish
 - ❑ Unnecessary duplication of peer review, editing, and publishing
- ❑ Duplicate publication- manuscript that overlaps substantially with one already published
 - ❑ Need clear, visible reference to the previous publication
 - ❑ Prior publication may include release of information in the public domain

UNDERSTANDING TEXT RECYCLING A Guide for Researchers

By Susanne Hall, Cary Moskowitz and Michael Pemberton for
the Text Recycling Research Project V.1, June 2021

https://textrecycling.org/files/2021/06/Understanding-Text-Recycling_A-Guide-for-Researchers-V.1.pdf

https://textrecycling.org/files/2021/04/TRRP_Best-Practices-for-Researchers.pdf



Example: Nature Policy on “Text Recycling”

"Text recycling" or reuse of parts of text from an author's previous research publication is a form of self-plagiarism. Here too, due caution must be exercised. When reusing text, whether from the author's own publication or that of others, appropriate attribution and citation is necessary to avoid creating a misleading perception of unique contribution for the reader.

<https://www.nature.com/nature-portfolio/editorial-policies/plagiarism>

accessed 01/25/2023

When is 'self-plagiarism' OK? New guidelines offer researchers rules for recycling text: Effort aims to identify what's ethical and legal—and what's not

<https://www.science.org/content/article/when-self-plagiarism-ok-new-guidelines-offer-researchers-rules-recycling-text>

Peer Review

Have you participated in drafting a peer review?

Yes



No



Not sure



Peer Review

- ❑ Meeting deadlines
- ❑ Assessing quality
- ❑ Judging importance
- ❑ Preserving confidentiality



Reviewers Role

- ❑ Help the editor make a decision
- ❑ Help authors communicate their work effectively and accurately
- ❑ Seek permission from editor to share (colleague or trainee)
- ❑ Does not contact author directly

Reviewer Responsibilities

- ❑ Scan quickly for qualifications
- ❑ Evaluate deadline
- ❑ Complete manuscript received?
- ❑ No COIs



Peer Review and COI

- ❑ Reviewers should be asked and should volunteer (if not asked) about any COIs
 - ❑ Personal/Intellectual
 - ❑ Financial
 - ❑ Competitive
 - ❑ Same institution
 - ❑ Recent co-workers or collaborators
 - ❑ Conflicts of conscience

Assessing Quality



- ❑ Were the research methods appropriate?
- ❑ Are the calculations correct?
- ❑ Statistical tests and findings?
- ❑ Are the conclusions supported by the evidence?
- ❑ Has the relevant literature been consulted and cited?

Reviewer Criteria

- ❑ Originality-- New discovery or extension of previous work
- ❑ Clear and complete
 - ❑ Statement of problem in context of literature
 - ❑ Description of methods
 - ❑ Data presentation and analysis
 - ❑ Abstract
- ❑ Experimental techniques and research design are appropriate
- ❑ Discussion relevant and rooted in literature
- ❑ Writing complete but concise

Judging Importance

- ❑ Is the proposed research important or are the results important enough to publish?
- ❑ Is this an important contribution to a field of study?
- ❑ Is the evidence important enough to be used in setting policy?



Confidentiality during Peer Review

“Manuscripts... are privileged communications that are authors’ private, confidential property, and authors may be harmed by premature disclosure of any or all of a manuscript’s details.”

Preserving Confidentiality



- ❑ Do not
 - ❑ Ask someone else to complete review
 - ❑ Use an idea in the proposal or manuscript before its published
 - ❑ Discuss review with colleagues
 - ❑ Retain a copy of reviewed material

Preventing Bias

- ❑ Peer Reviewers are swayed by stature of researcher, country of origin, preference for a research method, outcome of study under review
- ❑ Transparent Reviews?
- ❑ Eliminate Anonymous Reviews?

How do you feel about writing/drafting a peer review?



Publication Review



- ❑ Open Access
 - ❑ “Gold OA” peer reviewed OA journals (Directory of [Open Access Journals \(DOAJ\)](#))
 - ❑ “Green OA” already published, repository deposited
- ❑ Repositories ([PubMed](#))
- ❑ Preprint Servers ([arXiv](#))
- ❑ Post publication review ([F1000Prime](#))

Post-publication

“Some people believe that true scientific peer review begins only on the date a paper is published.” [ICMJE]

- ❑ Journals should
 - ❑ Have a mechanism for readers to submit comments, questions, or criticisms
- ❑ Authors should
 - ❑ Respond appropriately
 - ❑ Cooperate with any requests from the journal for data or additional information

Resources

[Macrina, Francis L.. 2014. Scientific Integrity, Fourth Edition](#)

[Defining the Role of Authors and Contributors, ICMJE accessed 2/2017](#)

[PNAS Editorial policies, accessed 2/2017](#)

[On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition](#)

[Committee on Scientific Conduct and Ethics \(CSCE\), accessed 2/2017](#)

[Conduct of Research, 2016, NIH, Fifth Edition, accessed 2/2017](#)



End for today

Questions?

Piled Higher and Deeper by Jorge Cham

www.phdcomics.com



WWW.PHDCOMICS.COM

title: "The Doctoral Dilemma" - originally published 5/22/2015