



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Collaborative Research: Avoiding Pitfalls and Sharing Credit

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Description

A short essay on how to avoid ethical issues in collaborative research.

Body

A. “Collaborative research” is here taken to mean any research in which two or more researchers work together toward a common goal, and in which all of the researchers make an important, substantive contribution to the project. Not counted as researchers are people who provide assistance but do not make a substantive contribution; for example, someone who is hired to transcribe interviews but makes no other contribution to the research is not considered a part of the collaborative team. The focus is on aspects of collaborative research that are unregulated.

Key moments in collaborative research

B. This bare-bones outline is intended to represent in rough chronological order most of the decision points in any collaborative research project. The items that strike me as critical are indicated in **boldface**.

1. The germ of an idea
2. Talking it over
3. **Assembling a team**
4. **Assigning tasks**
5. Designing the research protocol or methodology
6. Writing a grant application
7. Administering the approved grant*
8. Paperwork and permissions (IACUC, IRB, etc.)*
9. **Assigning authorship**
10. Collecting data
11. Analyzing data
12. Writing a first draft of the report
13. Writing the final report
14. Submitting the report for publication
15. Responding to reviewer's comments
16. Responding to correspondence based on the publication
17. Storing the data †
18. Closing out the collaboration
19. Sharing the data with members of the now-disbanded research team§
20. Sharing data with other researchers§
21. Initiating new research in the same general area

* These tasks first arise more-or-less when indicated, but continue throughout the project.

† In some cases, regulations or policies specify a minimum period for the storage of data.

§ These tasks are open-ended, with no set end date.

C. For clarity of presentation only one grant application and one publication are considered; in real life, some collaborations require more than one grant application and produce both publications and oral presentations. Note also that in any given collaboration some of the key moments listed here might well occur simultaneously, in a different order, more than once, or not at all. Some might also take place without one or more of the researchers being consciously aware of them.

D. Many of these tasks can be shared by team members, but some absolutely require that one person, commonly called the Principal Investigator or “PI”, take primary responsibility. Such tasks include administering the approved grant, taking care of paperwork and permissions, and responding to correspondence based on the publication.

Avoiding pitfalls

E. In research, as in life, working with other people is troublesome but unavoidable. Most of the time the benefits outweigh the burdens, but sometimes the burdens are overwhelming. Probably the best time to avoid pitfalls is at points 3 and 4 in the outline above – that is, at the very beginning of the collaboration.

F. Collaborations can go wrong because of a clash of unspoken assumptions. It’s hard to talk about unspoken assumptions because they are often unconscious and can be about sensitive issues. It might be easier to raise these issues if you have a checklist of items to discuss before making a commitment to the collaboration.

G. As part of the conversation before teaming up, it might be helpful to agree on a person who will arbitrate any disputes. It might be a department chair, a lab director, or some other trusted colleague. Obviously this arbiter will have to agree to take on this responsibility.

Assembling the team and assigning tasks

H. Who will act as PI?

I. What can each researcher contribute? Peter Cherbas introduced this typology of collaborative research in 2005.

- Trivial collaborations (e.g., I name in my grant proposal someone who will serve as a sounding board for my work, but who will not play a major part in it)
- Routine collaborations (e.g., I have an ongoing working relationship with a statistician; another researcher and I regularly share materials)
- True collaborations (i.e., the relationship is characterized by an ongoing, mutually beneficial, substantive cross-fertilization of ideas and effort; a true collaborator is difficult to find and replace)

J. How can you be sure your prospective collaborators actually have the expertise and the time needed?

Authorship

K. See “[Authorship in Scientific and Academic Research](#)”

Notes

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