

Best Practices for Collaboration in Research

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The purpose of this article was to explain academic collaboration, to describe typical activities that take place with collaborators, and to discuss some problems that could occur. Although research collaboration is usually rewarding, there can be problems in communicating, sharing the workload, and assigning the order of authors in the publication of results. Recommendations to avoid conflict include formal and informal agreements and a good system of communication.

Keywords: *authorship credit; authorship order; research collaboration*

Collaboration among researchers can take many forms. In academic research, collaboration usually means an equal partnership between two or more academic faculty members involved in a research project. The collaboration could range from initiating a project with colleagues from the same discipline to multidisciplinary collaborations including collaboration between academic and government institutions or across geographic locations. The research could be funded or unfunded. In funded research, it is important for all collaborators to understand the agreement between the principal investigator and the plan for publication of the results.

In my experience, collaboration among researchers has worked better when the research is funded because there will be a plan for the study with designated responsibilities for the collaborators. In many instances, there will be a percentage of effort assigned to each collaborator for the study. Because the collaborators have received funding, they will be obligated to submit a final report to the sponsoring agency. These reports are usually written collectively.

EXPECTED ACTIVITIES

Conceptualization of the Research

Agreements among the collaborators will need to be reached on the research goal, specific objectives, approaches, and methodology (e.g., quantitative, qualitative, or mixed approach). I like to spend a lot of time on this step. After I have identified a project and I have invited some collaborators, my co-authors

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and I will spend several hours refining the problem and deciding on the methodology. These brainstorming opportunities will probably involve more than one meeting. This is an excellent time to explore opportunities and obstacles. Then, my co-authors and I will develop an action plan based on the strength of each researcher.

Managing the Collaborative Relationship

An important determinant of a successful collaborative research project is the establishment of a system of communication to get the study accomplished and to avoid free riding. A good system of communication could include a protocol for identifying designated personnel responsible for different tasks and communication regarding the scheduling of meetings. It is important to specify the details of the agenda for meetings. A member of the team should take minutes which will be shared with everyone after the meeting. The minutes provide a reference for follow-up at the next meeting.

Accountability

Another very important area where individual and group accountability is required is in the handling of the budget and financial issues. Most researchers agree that formal agreements between researchers, institutions, and sponsoring agencies are essential. Formal agreements specify ownership rights to research materials, how the material can be used, what obligations will be incurred, and the need to provide acknowledgments for the funding, institutional support, and other contributions.

Accountability refers to the obligation of an individual to account for his or her actions, to accept responsibility for the actions, and to disclose the results in a transparent manner. Accountability could be accomplished without a written agreement, but there must be a strong verbal agreement and good faith for compliance. I try to be open-minded to avoid deterioration of collegiality if one of my collaborators has not done his or her part. When I am the lead author on a research paper, I provide deadlines for the stages of the research process. I explain to the co-authors that I expect them to deliver their segments of the project on time. I inform them about the scope of the project and the manuscript guidelines for the targeted journal. I will take the first initiative in responding to the reviewers' feedback, and I will assign specific tasks to address the reviewers' requests. In summary, I will be responsible for the overall publication process.

FACTORS RELATED TO SUCCESSFUL COLLABORATION

Trust

I believe that trust is the most important element in a successful collaboration. Other essential elements are developing a shared vision and clear expectations, building a good team, sharing recognition and credit, handling conflict, and having joy in the process. Open, honest, and respectful communication is critical for achieving those aims.

Formal and Informal Agreements

I believe that there should be a written contract that is developed by the collaborators at the beginning of a project. If the research is funded, the original research proposal will include a description of the roles and responsibilities of everyone involved in the project. It is possible that these initial agreements will need to be altered as the project develops, but it is important that the initial agreements were established. When the collaborative research is not funded, complete transparency of the process and rules should be agreed upon in the beginning stages of the collaboration. For example: Who will do each part of the study? And what is the deadline for each part?

Determination of Authorship Credit and Order

A major source of conflict in collaborative research could be the order of authorship and credit. I believe that authorship should be limited to those who have contributed substantially to the study. If a member of the team does not participate as expected, that person should be excluded as an author. The order of authorship for the co-authors should be based on their contributions, but all authors should be responsible for the accuracy of the final research article or report. A collaborator should not block publication of the article or report unless there are concerns related to scientific accuracy of the results. I believe that collaborators should voluntarily remove themselves from a project, and from co-authorship, at any point, if they no longer have time for the project (unless special concessions are discussed and granted due to health and unexpected life events).

Guidelines for assigning authorship vary between institutions and disciplines. They can be formally defined or the custom in that department, institution, or discipline. Although I am not aware of any standards for authorship in the Family and Consumer Sciences (FCS) field, I propose that FCS professionals should follow the standards explained in the *Publication Manual of the American Psychological Association* (2001). The APA acknowledges that authorship is not limited to the writing of manuscripts. It should include all collaborators who have made substantial contributions to a study such as “formulating the problem or hypothesis, structuring the experimental design, organizing and conducting the statistical analysis, interpreting the results, or writing a major portion of the paper” (*Publication Manual of the American Psychological Association*, 2001, p. 350). While the APA guidelines list many other forms of contributions to a study that do not constitute authorship, the guidelines state that combinations of these and other tasks could justify authorship. APA considers the institutional position, such as the Department Chair, insufficient for attributing authorship.

Special consideration should be given to faculty–student collaborations. Although collaborations between two professionals can occur on an equal basis, the collaboration between a faculty member and a student is inherently unequal. Fine and Kurdek (1993) believe that there are two potential ethical dilemmas in faculty–student collaborations. The first dilemma arises when a faculty member takes authorship credit that was earned by the student. The second dilemma occurs when students are granted undeserved authorship credit.

As mentors of graduate and undergraduate students, it is expected that a faculty member will collaborate with students on scholarly projects. In many instances, a student does not have the knowledge and expertise necessary to write the entire study for submission to a scientific journal. Several years ago, I developed a mentoring philosophy for publication with students. I believe that authorship credit and order of authorship decisions should be based on the relative scholarly abilities and professional contributions of the collaborators.

To account for possible asymmetry in the relationship, I suggest that faculty and students participate in the authorship decision-making process *early* in the collaborative endeavor. As a first author, the student might agree to write the first and second draft of a manuscript. As the second author, the faculty member could agree to supervise the writing process and to review drafts of the paper. In other instances, the faculty member will develop the research methodology, and the student will collect the data, enter and clean the data, and conduct the preliminary statistical analysis.

To protect my time, I provide clear and transparent expectations in case a student acknowledges losing interest in finishing the writing and publication process. I have my students sign an agreement that if two semesters have passed and there has been no progress on the manuscript, I will finish the manuscript after I have extensively revised and reanalyzed the data. Then, the student will take the second or third authorship position.

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