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Use peer-to-peer research collaboration in graduate school

Develop research collaborations early, and often with your fellow PhD students, say Jessica Eise, Meghana Rawat and Eric C. Wiemer.

Jessica Eise , Meghana Rawat & Eric C. Wiemer



Collaborations between early-career researchers have proven fruitful for some PhD students. Credit: Maskot/Getty

As three PhD students in communication at Purdue University in West Lafayette, Indiana, we have collaborated on two independent research projects on climate change, which will contribute to our PhDs. We found this peer-to-peer research – research undertaken without the direction of a faculty member – to be a way to support each other and increase our professional competence, as well as to boost productivity.

Our two collaborations were based on in-depth data collected through a student grant by one of us (J.E.) on a population of agricultural producers in the Andean region of Colombia. We worked together to analyse different parts of the data set. In one project we studied how farmers exchange climate-change information; and in the other we tried to understand the social and economic conditions that prevent farmers from successfully dealing with changing weather and climate. Our collaboration has led to several academic papers. Our grant enabled us to obtain international data for our projects, but in many cases original data could be collected locally at little to no cost.

To encourage PhD students to work with one another on research projects, we have brainstormed some tips on the basis of our own experience.



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Build your team. Identify your fellow PhD students' areas of expertise and talents, so you can negotiate who will contribute what to a project that you hope to complete. For our particular projects, Eric brought in-depth knowledge of computational methodology, Meghana had experience in thematic analysis and Jessica had subject-area expertise in climate change. We recommend making sure that you know your general role and everyone else's on the project. We created a Google Drive folder to upload all our material related to each project. In that folder is a draft in which we parse the article into sections and assign

people to those sections. Usually, these section assignments shift slightly as the article progresses and people's talents shine or interests expand.

Discuss author order. PhD students might find conversations about author order a new experience. Usually, no one teaches us how to have this discussion and it can initially feel awkward, but it's important to be clear about how your work will be recognized. At the beginning of the project, put author order on the agenda and ensure that everyone agrees. It's all right to accept that author order might change, but the conditions under which it will change, and how that decision will be made, should be clear. Each set of circumstances is unique and should be negotiated to match. This is good practice for your future career.

Set project goals. Make sure you're on the same page about where your project is going. Will the work be presented at a conference? Do you want to create a usable tool, such as an interactive website or a piece of software? A journal article? Where are you hoping to submit? Discuss your project aspirations clearly and concisely upfront as well, and determine what you are trying to accomplish. This will guide your progress. We set the goal of creating conference papers that we would convert into scholarly articles.

Seek expertise. Get faculty insights as needed. It's all right to approach a professor for advice and input; just be clear that it's a student-led project and that this will be reflected in the author order. Let them decide if they are happy to help in that context, and keep your requests within reason. If they're listed last, you can't expect a major contribution, and if they do provide a major contribution, that would defeat the point of it being a student collaboration. Also, part of the value

of working on an independent project is to ‘learn by doing’, and to practise hunting down resources on your own.

Keep a schedule. Amid the multiple demands of a PhD programme – classes, homework, teaching assistantships, research assistantships, conferences, seminars, preliminaries and the dissertation – the regularity of weekly meetings can prioritize independent research projects in your agenda. Arrange this from the beginning and stick with it. We meet every Wednesday and Friday for a couple of hours.

Learn from each other. You can learn many things from your fellow PhD students. We’ve taught each other specific, practical social science, too: such as a method for coding interview data, or a way of visualizing data about human social networks. And we help each other to maintain good mental health and work–life balance. Try to see each other as supportive peers in a quest to conduct great research, not competitors for scarce accolades.

A PhD programme can feel overwhelming, and it can seem as if you’re getting advice to do everything all at the same time. It’s an exercise in priorities, and your priority is to become a researcher. Collaborating independently with fellow PhD students will help to set you on that path by keeping you engaged and passionate as well as holding you accountable for your research goals.

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