

Multi-lab studies: Ethical guidelines

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What are Multi-lab studies?

Multi-lab studies, where many different researchers collect data at different research sites, are increasingly becoming an important part of psychological research. In effect, they allow “crowd-sourced”, collective research. Research organisations which sponsor and help administer multi-lab studies include the Psychological Science Accelerator (<https://psysciacc.org/>), Many Labs network (<https://osf.io/89vqh/>) and the Reproducibility Project (<https://osf.io/ezcuj/>). The Centre for Open Science (<https://www.cos.io/>) is also a pivotal organisation involved in supporting these projects.

What are the advantages?

Multi-lab studies have become an important tool in the shift towards **Open Science practises**. By the inclusion of many scientists working together, research effort can be leveraged towards a common goal (Moshontz et al., 2018), important phenomena can be investigated quickly (for example, in an unfolding pandemic, where urgency was imperative in the COVID-19 Rapid Response project: Wang et al., 2021), and the reproducibility of key studies can be tested with many more participants than would be feasible for any one research team to collect (Open Science Collaboration, 2015).

One key feature of multi-lab studies is therefore that they can be **extremely large scale**. For example, the COVID-19 Rapid Response project tested over 25,000 people across 88 regions of the world, including the UK, USA, Asia, Europe, Russia, Africa, and the Middle East (Wang et al., 2021). In total, 189 labs were involved in the testing for this project, which included three different experiments. As with many multi-lab studies, each study in the COVID-19 project consisted of a **core research team** (who designed and created the study, sought initial ethical approval from their home institution, and wrote the first draft of resulting papers) plus many **participating research teams** (who helped with data collection, getting local ethical approval, and commented on drafts). The University of Aberdeen was one such participating research team.

What ethical issues are there?

Clearly, such large-scale projects can be incredibly complex. Researchers involved in a multi-lab study should bear in mind that the size, the global remit, the timescale and the cooperative aspects of this research can each introduce ethical challenges.

Size of the project: Often, the project will have layers of scrutiny to contend with. For example, in the Psychology Accelerator COVID Rapid Response project, before the materials were submitted to *any* ethics committees, they were scrutinised by three core research teams, 140 independent participating research teams, and a project management team from the Psychology Accelerator. The three studies themselves were selected out of a shortlist of 11 (based on 140 responses from participating labs involved at that stage), which were themselves selected out of a longlist of 66 studies. The aims and design of the study had therefore already gone through considerable review at several different stages before it reached the ethics committees. At that point, it was scrutinised by around 186 local ethics

committees around the world (depending on the specific study). Clearly, not every one of those 186 ethics committees will have the exact same ethical processes.

Global remit: Different areas of the world have different ethical requirements e.g. in Scotland, the age of consent to take part in studies without parental approval is 16 years old, which is not the case in, for example, Australia, where it is 17 years old. There are also potentially other legal requirements; e.g. GDPR in Europe and (at time of writing) the UK. Many multi-lab studies are carried out online, which means that the research is also very public-facing.

Timescale: Often, the core research team only have weeks to pull together a whole study, with just days to get ethics permissions. Studies are often written up as pre-registered studies which means that as the study is being assembled, changes to the study which were requested by reviewers will also need to be incorporated.

Cooperative research: A potential issue comes from the fact that a central team are usually involved in creating the research materials, which means that any one researcher at participating university only has limited ability to change details of the study. It is not feasible for hundreds of ethics committees to have an equal level of oversight over a project so careful thought has to be given here as to how balance can be achieved.

How to conduct ethical multi-lab research

These challenges can be overcome. We outline here a set of common-sense guidelines to empower researchers at Aberdeen to participate and lead ethical multi-lab studies.

Be aware that ethical approval is needed at Aberdeen. If a researcher in the Psychology Department at Aberdeen University is involved in data collection, regardless of whether they are in the core or participating research team, then the project needs to go through the Department of Psychology Ethics Committee here at Aberdeen. This process is still required even if other ethical approvals have been met e.g. the core research team will often have their own institutional requirements, consent forms and so on.

The ethics committee are aware of the nature of multi-lab studies and will do their best to prioritise review of the proposal given the often-tight deadlines. Often there is also some flexibility from the core research team as to timing e.g. research teams can come 'online' as their ethics approvals are received. If there are any hard deadlines, let the ethics committee know.

Note that if there is no data collection at Aberdeen (whether online or offline) then the project does not need ethics approval here, but of course the main reason to take part in a multi-lab study is to collect data. Moreover, any promotion of the study in the media and so on, might end up being data collection.

Include a local consent form. A good idea is to include a standard Aberdeen University consent form and information sheet. Once participants have given their consent, they can then be given the link and/or access to the main study. In this way, any institutional

differences in consent forms, information sheets, etc, is minimised. Online software also makes it relatively easy to pipe participants through to a different webpage.

Note that a local consent form isn't required - it's also possible to submit the original study materials only. The ethics committee are also aware of the nature of multi-lab studies and will be looking to check that it is ethical, not trying to match the documentation to our usual processes. However, including a local consent form will allow for links to specific resources, e.g. counselling resources in Aberdeen/the UK, or so on.

Note any restrictions in the ethics application. If there is a hard deadline for ethics approvals, make it clear in the application. Note how many labs are involved, the role of the Aberdeen research team (as core or participating researchers), and list any other pre-existing ethics approvals and/or any other academic or institutional oversight over the study methods.

Be aware that the ethics process might be more iterative than normal. The nature of many lab studies, especially pre-registered ones, means that there might be changes which occur as the study develops and before testing occurs e.g. in response to reviewers' comments or local ethics boards. The Department of Psychology Ethics Committee at Aberdeen are aware and sympathetic, and updates will suffice to make sure the ethics approval stays current. Consider keeping a list of changes to the project and then submitting in one go just before testing starts, to minimise the burden on the ethics committee.

Make sure research assistants are included in the ethics approval. It is not necessary to list every collaborator (especially if there are hundreds!) on the ethics approval, especially as collaborators will naturally shift as the project rolls out. However, researchers at Aberdeen do need to be listed, e.g. research assistants, PhD students, other Aberdeen staff etc. Being involved in an Open Science project is a great experience for students and they report really enjoying contributing to such big picture science.

Think about the public-facing nature of the project. Many-Labs projects are often more highly publicised and in critical areas of public interest. We therefore need to be mindful that the ethics process at Aberdeen is robust. That isn't to say that difficult topics can't be tackled - the COVID Rapid Response studies, in particular, involved asking participants potentially stressful or anxiety-provoking questions about the pandemic - but we need to be mindful of any potential for distress and (like any study) make sure the benefits outweigh the costs and that participants understand and consent to the study.

Remember the Declaration of Helsinki. It can feel challenging to be part of a project with so many different participating groups and ethics processes. Ultimately, if the ethics committee judges that the research itself is not ethical then the research will not be approved, however frustrating that might be. Any disagreements between the ethics committee and the applicant would have to be referred to the Director of Research/ Head of School.

If in doubt, check that the project follows the [Declaration of Helsinki](#), which should apply to any research conducted with people. You can also refer to the [BPS code of conduct](#), [BPS guidelines for human research ethics](#) and the [BPS guidelines for internet mediated research](#). Aside from the obvious moral issues, we'd have a hard time publishing research which wasn't ethical!

The Psychology Department of the University of Aberdeen is committed to Open Science Practises and supports multi-lab projects. Hopefully, these guidelines will help empower more multi-lab studies at Aberdeen.

References

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