



Human Research Ethics: Can I Use My Own Class for My Research Study?

The short answer is **yes**. In Canada, if we want to do research that involves humans (like our students), we need to run our study by a behavioural research ethics board (REB) for approval. Every university has such a Board. Some may also have Biomedical and/or Veterinary REBs. For engineering education research though, you'll usually be dealing with your Behavioural REB.

Referring to the Snack on Statistical Studies, a sample study that involves a survey, for instance, will require a simple ethics application which will likely be approved quickly (minimal risk). An observational study will require more safeguards, usually to address issues of free and informed consent, coercion to participate, and/or conflicts of interest. This is especially true for experimental studies in engineering education, where fairness can also be a major consideration.

The good news is that you can generally do whatever study you have in mind. It's just that some studies will require more logistical complexity to ensure that the research is carried out ethically. If you are teaching a class that you want to study, such as in the scholarship of teaching and learning (SoTL), **you have an inherent conflict of interest as a teacher and as a researcher** i.e. sometimes the objectives of those two roles will differ. When recruiting, you usually can't directly recruit your own students due to perceptions of coercion and you can't see who has participated and what they have said, until your position of influence over them has expired. To address this issue, it is best to have a colleague, or grad student, do the recruitment and hold the information about who is in, or not in, the study until after you submit your grades for the term.

If you do an experimental study, **you usually need to ensure that those getting the experimental treatment will not be able to get more benefit than the "control group"**, if benefits turn out to be evident. There are good methods to deal with all of these issues and more. Look for future research snacks on cross-over studies, and so on, and talk to your colleagues who have experience in SoTL – your teaching centre may be a good source for information on this too.

While some may lament the need for ethics approval, it can be a helpful experience. Procedurally, you'll want to plan out how you will execute your study, in great detail. The devil (and the ethics) is typically in the details. Once you have your

plan, you can then find your Board's forms and fill them out. Typically, you will need to prepare the basic application, along with a consent form and a participant recruitment narrative. Then the Board will review your application. This can take anywhere from 2-8 weeks, depending on how complex your application is, and how busy your Board may be. REBs will evaluate your application against the criteria laid out in the latest (2018) version of the Tri-Council Policy Statement (or TCPS-2). You and anyone else involved in carrying out your study will need to complete the TCPS-2 tutorial, which can be found at https://ethics.gc.ca/eng/education_tutorial-didacticiel.html. Much like graduate theses, it is rare for an application to fail (be rejected) and it is also fairly rare for no modifications to be required. Usually, the Board will require you to clarify a few points and/or add an extra safeguard or two for your participants (like minor revisions on a thesis).

The point of the ethics review is to make sure that human research is conducted ethically. This ensures that participants can offer free and informed consent, that participants are treated with fairness and respect, that participants are not pressured to participate, that conflicts of interest are well handled, that risks are minimized while benefits are maximized, that data is protected, and that no systemic discrimination takes place during the study.

While the TCPS-2 gives you the ethical framework for your research, don't hesitate to reach out to your REB for advice and assistance. As well, it is often helpful to consult with peers who have done similar studies either at your institution or at others. Not every REB will have exactly the same procedural requirements (they all interpret the TCPS-2 slightly differently), but they should be fairly similar.

As a final note, if your "research" is really an internal quality assurance study, accreditation, institutional quality assurance, program evaluation or simply wanting to know more about the effectiveness of your own teaching then you may not need to complete an ethics application at all. Best to check with your REB about that. Even if you don't need formal REB approval, you still need to do your QA study ethically! Indeed, it's best to pretend that you need ethics approval regardless, so that you'll continue to treat your students ethically.

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