Carnegie Mellon and Duke Lower Barriers to Conducting Educational Research
Templates Available Online for Free via Empirical Educator Project

Carnegie Mellon University and Duke University have shared newly available free tools that will significantly lower the barriers to conducting ethical educational research. The two universities contributed the tools through e-Literate’s Empirical Educator Project (EEP), an effort to promote broader adoption of evidence-based teaching practices and foster a culture of empirical education across higher education.

As with all academic research involving human subjects, educational researchers must have their experimental designs approved by their university’s Institutional Review Board (IRB). If a researcher wants to study students or their work, they must explain how they will get the students’ informed consent to participate.

This can be a major barrier that often prevents research from being undertaken. Teaching faculty who may be interested in conducting a study may decide that the bureaucratic burden is more than they can take on. Multiple universities that want to collaborate on cross-institutional studies will have to get approval from each institution’s IRB in an environment where there are no widely adopted standards for reviewing and approving educational research by these bodies. Educational technology companies that want to be more transparent and collaborative with universities about their own research into product efficacy can find the IRB process impractically time-consuming. As a result, far less educational research gets conducted in ways that are both reviewed for ethical practices and shared as credible research that contributes to the state of the art in learning science.

Through e-Literate’s EEP, learning science researchers at Carnegie Mellon and Duke Universities discovered that each institution had developed a solution for part of this problem. Carnegie Mellon University has developed templates approved by their IRB that they estimate will accommodate approximately 80% of classroom research use cases. Meanwhile, Duke University has developed language and a process approved by their IRB for requesting and tracking informed consent from students.

The two universities have released the tools under a Creative Commons Attribution (CC-BY) license and provided “train the trainer” support for the use of their templates and protocols. Together, these contributions could enable many of the educators and product designers who are already conducting informal educational research all over the world to participate in the same sort of social fabric that has enabled communities of researchers in other human sciences to tackle problems from cancer to Alzheimer’s disease.
e-Literate is now looking for one or more pilot institutions to adopt and adapt these contributions, with particular interest in finding access-oriented colleges and universities that have different educational and research contexts from Carnegie Mellon and Duke Universities. The goal of the pilot will be to learn how these tools need to be adapted for use in different kinds of colleges and universities.

“If we are really committed to improving the quality of education systemically, then we have to create social infrastructure that lowers the barriers for ethical educational research to flourish,” said Michel Feldstein, co-Publisher of e-Literate and director of the Empirical Educator Project. “That’s how medicine made such miraculous strides as a field in the past century. We need to do the same for education if we want to achieve equally dramatic improvements in the next century. The combined contributions from these two great universities represent an important step in that direction.”

According to Marsha Lovett, Carnegie Mellon University’s Associate Vice Provost for Educational Innovation and Learning Analytics, “Data collected in the classroom and in online learning environments has the power to reveal a rich view of the learning process and drive a transformation in how higher education works. A key to achieving this is making it easy enough – with the appropriate tools and resources – for faculty to routinely engage in research within their own courses. Such research – conducted at scale, across institutions – can then generate data-driven improvements in the way faculty teach and students learn. We hope CMU’s IRB protocol text is a helpful resource to promote this evolution.”

Matthew Rascoff, Duke University’s Associate Vice Provost for Digital Education and Innovation, says of the effort, “Duke is delighted to be part of the Empirical Educator Project and to contribute to the community effort to advance evidence-based practices in teaching and learning. Education innovation should be open source because advances have the potential to benefit all learners — they are positive sum. That is why we are freely sharing our streamlined approach to applied learning science research with the EEP community.”

Copies of the contributions from the two universities can be found on e-Literate at https://mfeldstein.com/educational-research-irb-infrastructure/.

The Empirical Educator Project is run by e-Literate, the premiere educational technology news and analysis publication in higher education. e-Literate is affiliated with MindWires LLC, an educational technology consulting company that provides universities and the companies that serve them with strategic planning and decision-making support around technology-enabled excellence in teaching and learning.