

## Workshop (Via Zoom)

## Credibility revolution and open-science: Pre-registrations and Registered Reports

1:00 p.m. – 4:00 p.m. | September 21, 2020 (Monday)



Dr. Gilad Feldman
Assistant Professor
Department of Psychology
The University of Hong Kong

## **Abstract**

Reproducibility and replicability are at heart of science, yet increasing evidence from recent years suggests that many of the findings in science are irreproducible and non-replicable in what some termed as a "replication/reproducibility crisis" and a new "credibility revolution" calling for significant changes in the way we do science.

In this 3-hour workshop I will introduce open-science as a way forward, focusing in this session on pre-registrations and registered reports. I will first briefly review the challenges, yet will soon shift to solutions – tools and practices that we can all easily implement in our own research to improve the trustworthiness and credibility of our research.

Solutions wise, I will cover pre-registrations and the emerging registered-reports article submissions (journal submissions with peer review on introduction and methods prior to data collection, with in-principle acceptance regardless of findings). We've developed Registered Reports templates for experimental work, replications and extensions, and meta-analyses, which include all you'll need for you to apply those to your research.

We have pre-tested those successfully in undergraduate courses I gave at HKU with over 40 completed projects. I will provide examples from my work with students and share many other resources that would allow you to do similar things in your research and teaching, including guides and automated tools to optimize your research process.

I will also argue that Registered Reports and pre-registrations are not only better science but also help scholars in their science careers. I will debunk myths about pre-registrations and registered reports as being restrictive and more time consuming, and present data from over 5 years of Registered Reports and our own experiences at HKU shoeing various benefits such as lowering risk, reducing uncertainty, eliminating outcome/hindsight/confirmation biases, and helping in finding funding and collaborations.

To get you started before the workshop:

On registered reports: <a href="https://cos.io/rr/">https://cos.io/rr/</a> (over 250 journal now support Registered Reports!)
On pre-registrations: <a href="http://www.sciencedirect.com/science/article/pii/S0022103116301925">http://www.sciencedirect.com/science/article/pii/S0022103116301925</a>

An introduction presentation to registered reports by Chris Chambers from the Center of Open Science: https://osf.io/m7y8f/

About open science and the replication/reproducibility crisis: <a href="https://mgto.org/open-science/">https://mgto.org/open-science/</a>
Our mass pre-registered replications project at HKU: <a href="http://mgto.org/pre-registered-replications/">http://mgto.org/pre-registered-replications/</a>
Our HKU replication & extension main manuscript template: <a href="http://mgto.org/RRmanuscripttemplate">http://mgto.org/RRmanuscripttemplate</a>
Our HKU replication & extension supplementary template: <a href="http://mgto.org/RRsupplementarytemplate">http://mgto.org/RRsupplementarytemplate</a>

Our HKU experimental Meta-Analysis Registered Report main manuscript Template: <a href="https://mgto.org/exp-ma-rr-template-main">https://mgto.org/exp-ma-rr-template-main</a> Our HKU experimental Meta-Analysis Registered Report supplementary Template: <a href="https://mgto.org/exp-ma-rr-template-supp">https://mgto.org/exp-ma-rr-template-main</a>

Our collaborative guide on running pre-registered replications: <a href="http://mgto.org/replicationguide">http://mgto.org/replicationguide</a>

Many examples for pre-registrations from our project: https://osf.io/5z4a8/

Examples of completed projects by HKU UG students using our templates: <a href="http://mgto.org/hkureplications2019">http://mgto.org/hkureplications2019</a>

About me: <a href="https://giladfeldman.org/">https://giladfeldman.org/</a>

Please do go over the resources and prepare questions you'd like me to address in the workshop. Feel free to email me in advance at <a href="mailto:gfeldman@hku.hk">gfeldman@hku.hk</a> if there's a specific concern or practicality you'd like me to address.

**Register in advance for this meeting:** https://hku.zoom.us/meeting/register/tJAkceiqqTgsGtWfLwUfoVkNWQPdzn3AI4jB

After registering, you will receive a confirmation email containing information about joining the meeting.