Framework for Open and Reproducible Research Training

FORRT

Sam Parsons, Flavio Azevedo, Carl Michael Galang
## FORRT sale’s pitch

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The Enemy

Questionable Research Practices (QRPs)
Q-Measurement-Ps
P-Hacking
Data Hogging
HARKing
Publication bias
Nefarious Incentives
Underpowered studies
Why now?

Reproducibility Crisis
Questionable Research
Misaligned Incentives
Re-evaluation
Why Now? Initiatives!
The Promised Land

Open Scientific Communication → Restructured Incentives → Crowdsourced → Cumulative

The Psychological Science Accelerator (Chartier, 2016-Forever)
Becoming Cumulative Science (Mischel, 2009)
Obstacles

Current teaching practices
Obstacles

Teaching subject-matters without:

- probabilistic uncertainty
- research design
- Samples (type & quality)
- measurements
Obstacles & Consequences

Future scholars

Future Consumers of science

Collaborative Crowdsourced Citizen
HOW?

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Framework for Open and Reproducible Research Training
Main Motivation

Teaching of reproducible and open research practices is the clearest indicator of the degree to which institutions and/or departments embody principles of credible science.
HOW?

Only Resource Tool
(or resource gateway)

for Faculty/Institutions

Two goals
1. Assessment
2. Resource
FORRT
Assessment

6 core principles

– Reproducibility and replicability knowledge
– Conceptual and statistical knowledge
– Reproducible analyses
– Preregistration
– Open data and materials
– Replication research
FORRT Assessment

**Breadth** describes how widely teaching is distributed
- None. Not yet enacted, minimal breadth, or no evidence
- Some. Opportunities for some.
- Course requirement for all.

**Depth** describes the degree to which students interact with the core:
- None. Not yet enacted, minimal depth, or no evidence
- Knowledge.
- Practice.
- Application.
FORRT
Resource Gateway

- Curated
  - Reproducibility and replicability knowledge
  - Conceptual and statistical knowledge
  - Reproducible analyses
  - Preregistration
  - Open data and materials
  - Replication research

- Crowdsourced
  - As above
FORRT

Initial (and tentative) steps to join FORRT

Here's a minimal template to enlist your substantive course – on any discipline in social sciences – on FORRT. Please send it to FORRTproject@gmail.com.

For information about FORRT’s tentative implementation plan, follow this link and click on the tab “Implementation Plan.”

FORRT project invites interested scholars to participate in the further development of its concept as well as in expanding its scope to social sciences more broadly. We currently have a draft manuscript for which we are collecting feedback. If you would like to contribute in any way, please consider commenting in our early draft or emailing us at FORRTproject@gmail.com.
FORRT is a collaborative project born out of a workshop during the annual meeting of the “Society for the Improvement of Psychological Science” (SIPS) at Grand Rapids (US) in 2018 with the outstanding and wonderful collaboration from:

Sam Parsons
@Sam_D_Parsons
Experimental Psychology at University of Oxford

Carl Micheal Galang
@MyEngrams
Social Brain, Body and Action Lab at McMaster University.