

# OPEN SCIENCE MADE EASY

## 7 steps towards transparent and reproducible research

### 1. Create your own OSF account

**Open Science Framework:** (one possible) online platform to document and present your research process transparently



- Go to <https://osf.io/>
- Register: name, email, password
- Create new project: 'My Projects' → 'Create project' → Insert title → 'Create'
- The URL of the project will not be changed → can be referenced in your paper
- The account can be used for all the following aspects of Open Science (OS)
- When you are ready: Change project status from *private* to *public*

### 3. Open Materials

**Make methods and materials transparent and available**



- Upload documents describing all processes, methods and variables to your OSF project
- Add the OSF link in your paper
- Basic lists as well as detailed code books are feasible
- If possible upload the original questionnaires (be cautious with copyrighted materials!)

### 2. Pre-register your own studies

**Describe your hypotheses, methods and analyses before running the study in your pre-registration**



- In OSF: 'Project overview' – 'registrations' – 'New registration'
- Choose and complete a template
- Make it public immediately or use the embargo (up to 4 years) to postpone public access.
- Pre-registrations can ...
  - be brief or very detailed
  - be made before/during/after data collection
  - include confirmatory, but also exploratory and open research questions

### 4. Open Data

**Make your research data publicly available**



- Notify your participants in the informed consent form
- Make all primary data available that is necessary to reproduce your results
- Guarantee anonymity (if necessary delete variables, collapse, ...)
- Prepare your code book
- Upload your data files and code book to the OSF project, add the link in your paper
- Make your data citable (doi)
- Cf. the DGPs recommendation for open data sharing: [http://bit.ly/dgpsdata\\_en](http://bit.ly/dgpsdata_en)

## 5. Reproducible Code

### Make your analyses transparent and your results reproducible



- Prepare your final, well-commented analyses scripts (for example R code, SPSS syntax)
- Upload your scripts into your OSF-project and add the link to your paper
- Make sure your script, if run on your data, produces the exact result outputs that you describe in your paper
- Your analytic code is helpful even if you cannot make your data publicly available

## 7. Do open research and talk about it ...

### Open science can promote your research career and foster research collaborations



- Refer to your OSF-account on your homepage
- Emphasize your OS activities in your CV and job applications
- Refer to your materials, data, scripts in your further work and ask colleagues to do the same if they used your materials
- Encourage your supervisor, colleagues and your students to practice open science
- Make your commitment to open science public, e.g. <http://www.researchtransparency.org/>
- Use the chances of sharing data to establish research collaboration
- Establish your own local Open-Science-Initiative at your institution, see <https://osf.io/tbkzh/>

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**Resources:** <http://www.bitss.org> | <https://osf.io/preprints/psyarxiv/>  
<https://cos.io/> | <https://cos.io/our-services/open-science-badges-details/> |

## 6. Open Access



### Make Pre/Postprints available

- What am I allowed to make publicly open?  
Check the journal guidelines at <http://www.sherpa.ac.uk/romeo/>
- Before the review process starts
  - Compile a preprint document (i.e., your manuscript before peer review)
  - For example, upload at <https://osf.io/preprints/psyarxiv>
  - Ask the community for feedback
  - The preprint can be linked to an OSF-project (for example for supplementary material)
- As soon as your paper is in press
  - Compile a postprint document (i.e., final version of your manuscript after review)
  - Update the preprint at PsyArXiv by replacing it with the postprint.  
Indicate the final reference and doi of the PDF version of your article provided by the journal
- Papers that are made available as a preprint are cited more frequently!

### Additional information and helpful links:

[https://osf.io/x3s5c/wiki/Open\\_Science\\_Infos/](https://osf.io/x3s5c/wiki/Open_Science_Infos/)

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