

# Best Practice: Minimal Peer Review



## An Erfurter Open Science Initiative Code of Practice

The idea is charmingly simple: before depositing datasets in archives or repositories there is a minimal check for function and completeness. The aim is to spot potential weak points in dataset documentation and conversion while the knowledge of details concerning content, coding, quantities to be measured and procedures is fresh in the mind of the scientist.

The procedure is easily replicable: datasets are sent to another member of the Erfurter Open Science Initiative (EFOSI) who then opens, reviews and comments them. At the moment, this is done by putting the dataset into the EFOSI Moodle group and asking for volunteers to review them.

In order to spot functional problems early on, it is helpful to choose somebody whose technical setup is as different as possible from the one in which the data were created (i.e. choosing someone with a Macbook when the analysis was done on a PC). This shows pretty reliably whether the conversion to open formats was effective. If readability issues exist, they should become apparent at this point.

The following aspects are included in the check:

- ✓ Is it possible to open the dataset?
- ✓ Are there any self-evident formatting problems due to data conversion into the open format?
- ✓ Are meta data complete and self-explanatory?
- ✓ Is it possible to understand the dataset with the help of the attached meta data and the included readme file? If not, what additional information would be helpful?

As members of the Erfurter Open Science Initiative come from neighbouring disciplines they are good test persons for the typical reader. If they cannot interpret variable descriptions and variables with the help of the readme file, it can be assumed that other people will find comprehension difficult as well.

If reviewer feedback on dataset integrity, functionality or interpretability is negative, the author can fix these errors and offer a corrected dataset version for a second round of reviews. It can take several iterations until both reviewer and author are happy with the result. This process gives the author reasonable confidence that the dataset is up to disciplinary standards and provides enough information to be comprehensible and reproducible. A vital step towards archiving the dataset, depositing it in a repository or joining it as a supplement to a journal article. Another advantage of the procedure is that all those involved in the project get used to giving and receiving feedback on their data and the shape it is in. This change of perspective that sharpens their mind and makes them more appreciative of other peoples point of view. An advantage that is not exclusive to (data) publication.

# Best Practice: Minimal Peer Review



Who is the Erfurter Open Science Initiative?



Image: Campus of the University of Erfurt (Source: University of Erfurt )

The [EFOSI](#) aims to strengthen transparency and reliability of social and behavioural sciences research results by implementing open science procedure.

EFOSI supports:

- Preregistration of research-design and hypotheses
- Publication of research data and research software
- Inclusion of open science in the curriculum
- Open Science in bachelor, master and doctoral theses
- Making open science contributions count towards university hiring decisions



Do you have any questions about this Best Practice or would you like to suggest another one?

Please contact us: [info@forschungsdaten-thuringen.de](mailto:info@forschungsdaten-thuringen.de)