**HOW TO… prepare a session**

**Purpose of document**

This document outlines how to prepare a session for the Open Science Student Support Group. It aims to provide guidelines to support presenters in their preparations, and give recommendations on what to think about and consider during the process, but does not restrict presenters’ creativity and freedom in how to make their contribution to the group. Organizers from the core sessions unit will check in with you before the session and be available to provide counsel and support.

**Preparing an introduction**

The 10-20 minute introduction at the start of our biweekly sessions serves to provide participants with some of the basic background and concepts relating to different open science practices, allowing everyone to take part in the discussion afterwards. In this section, we’ll give an overview of the aspects that we think would be beneficial to cover for each open science topic we’ll discuss, but we understand that certain aspects are more/less relevant depending on the practice in question. Feel free to emphasize certain aspects more/less on your discretion. Please try to keep it brief: The introduction is supposed to be just that, you don’t need to take a deep dive into the topic you are presenting on. Providing resources for people who would like to know more about the topic to learn more about it (articles, podcasts, video’s) is strongly encouraged.

*Who am I?*

Introduce yourself briefly to the group. Share your name, preferred pronouns, a bit about your lab and research, what motivated you to join our group/introduce an open science practice, and any other personal details you feel comfortable with sharing.

*Why is the open science practice important?*

Open science practices have been developed in response to issues existing in science (e.g. the replication crisis, questionable research practices, lack of transparency, pay walls). Highlight what issues the practice relates to and why these issues are important to address. Think of how these issues limit the advance/use of scientific findings, how they exclude certain people or create/perpetuate existing inequalities in society.

*What is the open science practice?*

Introduce the open science practice, define basic concepts and briefly explain how it works in practice. If you are able to give some practical steps or resources towards implementing the practice, that is also great! Don’t worry about giving too much detail: If there is interest in a more hands-on session on the practice, we can follow-up with a workshop.

*What are the benefits of this practice?*

Talk about how does this practice address the issues you highlighted before. What additional benefits does this practice have? You can also consider how students might get credit for their efforts for this practice (e.g. through open sourcing, on CVs).

*What are the barriers/potential downsides of the practice?*

Open science aims to resolve issues existing in current research practice and make academia better, however, implementing open science practices can be hard or even have far-reaching negative consequences, especially for people who are early in their careers, don’t have stable employment, have limited financial resources, live or originate from poorer countries, and/or belong to group who have been historically disadvantaged (e.g. based on race, gender, ability, sexual orientation and ethnicity). Acknowledging barriers to open science and the fact that systemic inequalities exist in academia as well is essential for ensuring the same inequalities are not perpetuated by the open science movement and truly making science accessible, inclusive and equitable.

This section was inspired by this article by Christie Bahlai and colleagues (2019). We strongly recommend reading it (see references section below for full reference).

*Sources/resources*

For purposes of transparency and accountability, we ask that you keep accurate track of the sources you use for creating your presentation, and provide a list of these sources. Additional resources on the topic are also very welcome.

**Challenges & discussion questions**

Challenges and discussion questions serve to facilitate discussion and help students find practical steps for and support in implementing the open science practice you introduced. As the presenter on a practice, you are invited to propose challenges and/or discussion questions, but the end responsibility for them lies with core session unit organizers. Ideally, you and the organizers would come up with the challenges and questions together.

*Criteria for challenges*

Challenges should have different levels of difficulty/effort so we can meet students where they are at – in terms of time, experience and other personal circumstances. In addition, the challenges should provide specific steps to take. Here are some guidelines to keep in mind for coming up with good challenges.

* Easy challenges
  + Should only take a couple hours of work to complete
  + Should not require any prior knowledge about the open science practice
  + Learning more about a practice or discussing it with supervisors, lab members and fellow students (e.g. in the open science student support group) are a good example of an appropriate easy challenge
    - If you do this, providing some resources can greatly help to make it more concrete (e.g. share and discuss this paper, watch this lecture, start a Slack channel to discuss a practice with fellow group members)
* Medium challenges
  + Should challenge students to build some of the easier/less effortful/less risky aspects of open science practices into their everyday research (e.g. keeping private project workflows, write private reproducible code, …)
  + Should be doable without extra funds or explicit support from the supervisor or other collaborators
* Hard challenges
  + Should challenge students to build the more difficult aspects of open science practices into their everyday research (e.g. preregistering reports, sharing data, sharing code, …)

**Slides**

Any format welcome. If you do use visual materials, please follow the guidelines for accessible presentations below. A template PowerPoint deck formatted according to these guidelines can be found on our OSF/GitHub repository.

**References**

Bahlai, C., Bartlett, L. J., Burgio, K. R., Fournier, A., Keiser, C. N., Poisot, T., & Whitney, K. S. (2019). Open science isn’t always open to all scientists. *American Scientist, 107*(2), 78-82. <https://doi.org/10.1511/2019.107.2.78>