**HOW TO… prepare a presentation**

**Purpose of document**

This document outlines how to prepare a presentation 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.

*What is the open science practice?*

Introduce the open science practice, define basic concepts.

*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.

*How does the open science practice work?*

Briefly explain how the open science practice translates into everyday research. You might want to specifically consider this in the context of student research. 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, we ask that you keep accurate track of the sources you use for creating your presentation, and provide a list of these sources. Please also cite any licenses/copy rights related to any images you use. Additional resources on the topic are very welcome too.

**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.

*Discussion questions*

There are two rounds of discussion for which questions/prompts should be prepared. The first should focus on the practice in general, the what/why/how of it and any potential issues/barriers of this practice. The second round should focus on how the practice fits with the students own projects/circumstances, what steps they can take to implement it, what issues they might run into or might already have run into in the past.

*Challenges*

Challenges are actions that students can complete in order to deepen their understanding and practice of open science. Challenges should be accessible no matter what your entry point into open science, and scalable depending on one's skills and knowledge pertaining to the open science topic in question. For each session the presenter, in collaboration with the session organizers, will develop a series of challenges that fit into the following themes:

* Learn more about it!
  + Challenges in this category should encourage students to check out resources compiled by the presenter/organizers or seek out more information on their own.
* Talk about it!
  + Challenges in this category should encourage students to engage in discussion or sharing of open science topics. This might include encouraging discussions on the OSSSG Slack workspace, following certain accounts or groups who share about open science on Facebook or Twitter, or having conversations with other grad students, lab members or supervisors.
* Try it out!
  + Challenges in this category should provide practical steps for students to try out an aspect of the open science session topic in practice. This might include trying a new file system, creating a GitHub or OSF account, including data sharing in your next ethics application, etc.
* Implement it!
  + Challenges in this category should provide practical steps for students to put the open science session topic into practice across their research projects. Challenges in this section might emphasize having students "commit" to a certain action going forward, or for a specific period like a semester.

**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.

* Brief checklist: <https://www.queensu.ca/accessibility/how-info/accessible-documents/accessible-powerpoint-presentations-checklist>
* Longer step-by-step guide: <https://www.dor.ca.gov/Content/DorIncludes/documents/DisabilityAccessServices/7-Steps-2-Create-Accessible-PowerPoint-Slideshow.pdf>

**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>