

Engaging Small Group Open Access Education for STEM Students and Faculty

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NUTRITION INFORMATION

Open access (OA)—information made available online free of any fees or other access barriers—is a principal component of open science practices, which promote transparency, reproducibility, and collaboration at all stages of the research lifecycle. Open access not only provides equitable access to research to a global audience, it also benefits researchers by offering increased visibility and potential for citation, and OA publishing is increasingly becoming a requirement of funding organizations worldwide.

In spite of all this, engaging STEM departments with OA resources at the library can present a challenge. Frequently, faculty and student knowledge around OA is limited, and there are persistent misconceptions that conflate OA journals with predatory publishing practices or a lack of rigor in peer review. In addition, faculty and graduate students often have no interest in attending a large workshop or lecture geared towards a general STEM audience because they fear or assume that the specific concerns of their discipline or department will not be addressed.

Designed with STEM and scholarly communications librarians in mind, this recipe

empowers the reader to deliver targeted OA education in small-group environments like department meetings, graduate affinity groups, and classrooms. In addition, this recipe enables librarians to more deeply engage these community groups in discussions about open science library resources by encouraging them to get to know their constituents and customize educational materials.

LEARNING OUTCOMES

This recipe enables librarians to conduct OA education that will teach participants to:

- define the main OA publishing models—Green, Gold, and Diamond;
- articulate the benefits of publishing OA;
- assess the quality and legitimacy of OA journals; and
- make informed decisions about how to publish openly in the way that best aligns with their specific research goals.

NUMBER SERVED

This recipe is designed for faculty and graduate students and best serves groups of two to thirty participants. A smaller group size leaves ample time for discussion, but the content can be scaled to larger groups.

COOKING TIME

Prep time can vary depending on the needs of the target audience, and presentations can range from thirty to ninety minutes.

DIETARY GUIDELINES

The targeted instruction in this recipe will help improve general open access literacy, promote related library services, and encourage open publishing practice. In addition to education, many academic libraries directly support open access publishing and initiatives for their patrons. Outreach through OA education helps to increase use of these services.

INGREDIENTS AND EQUIPMENT

- librarians—at least one of the following, and even better in collaboration:
 - subject specialist/liaison librarian
 - open scholarship/scholarly communications/publishing librarian
- cohort contact who will act as the primary source of communication
- list of OA services/tools offered through the library and across the wider campus (e.g., institutional repository, OA policies, transformative agreements, publishing funds and grants, on-campus publishing and hosting services)

- list of resources to help participants find and evaluate OA publishing outlets (e.g., Directory of Open Access Journals, OA repository lists, etc.)
- space that will accommodate all participants (e.g.,
 - department or library office, conference room, or classroom space; remote meeting room, etc.)
- presentation slides and/or handouts (See Additional Resources below for examples.)
- Arrange to market the event with the department or group contact person. A member or leader of the cohort to which you are speaking will provide the most efficient way to advertise your event (and possibly require attendance).
- Sending emails, creating fliers, or promoting online can all be effective, but the strategy needs to be tailored to the group. Since this is a cohort-specific event, general promotion avenues within the libraries may not be appropriate or effective.
- Work with the contact person to create promotional materials. The librarian can create the materials, but the contact should, at minimum, review them.

PREPARATION

Event promotion (see figure 1):



Figure 1. Fliers can be an effective method of promoting the workshop.

Choose a location and time:

- When choosing a location, consider how to engage the most participants.
 - Faculty members may prefer a departmental conference room or office.
 - A room in the library may best serve graduate students.
 - Virtual meetings can make the presentation more accessible, but dialogue can be more challenging.
- If possible, consider fitting your presentation into an existing gathering, such as a department meeting, to increase attendance and meet your audience where they are.
- The space will need to have access to a screen for displaying the presentation.

Prepare the presentation:

- Tailor presentation slides/handouts for

the specific audience (see figures 2 and 3) by:

- meeting with the contact person to ask about the group's familiarity with open access, major concerns, and points of confusion or curiosity and
- researching OA publication examples specific to your group (try to find examples where faculty have already published, but this can also be good opportunity to highlight new sources as well).

A Quick Guide to Academic Publishing

How do I evaluate a publication?

Legitimacy

The advent of digital publishing has led to a proliferation of online-only academic journals, many of similar or even superior quality to some print publications, but others of dubious reputation. If you've been invited to submit to a journal but are unsure about its legitimacy, ask yourself the following questions:

- If the journal is open access, is it registered with the Directory of Open Access Journals (<http://doaj.org>)?
- Does the journal list the names of its editorial and advisory boards?
- Are the journal's peer review and editorial policies openly available?
- Do you recognize the names of current contributors as scholars in your field?
- Do you recognize the publisher of the journal? Is this information easy to find? Is that publisher a member of COPE (the Committee on Publication Ethics)? See: <https://publicationethics.org>

If the answer to any of these questions is no, it's possible (but not guaranteed) that you're dealing with a predatory publisher.

Impact

- You can investigate journal rankings at Scimago Journal & Country Rank: <https://www.scimagojr.com/>
- We can also get an idea of how people will find your work by understanding where it is indexed. Ulrich's Global Serials Directory can help you find this information: <http://ulrichsweb.serialsolutions.com/>

Access and Copyright Policies

- What rights will you retain (if any) if this journal publishes your work?
- Is the journal open access, or will its policies allow you to make a version of your work available in a disciplinary or institutional repository?
 - Check Sherpa/Romeo for this information: <http://www.sherpa.ac.uk/romeo/search.php>

Manage your scholarship

ORCID | <https://orcid.org/register>

A persistent digital name identifier that distinguishes you from any other scholar with the same name and assures that your research is correctly attributed to you

Figure 2. Handouts can go into further detail on a specific topic or serve as a learning aid to reinforce the content of the presentation.

What's the goal of this workshop?

- Provide clear information about different OA publishing models
- Answer questions or concerns you may have about open access and how it may impact your work as researchers and authors
- Equip you to make informed decisions about how to publish openly in the way that best aligns with your goals for your research

Green Open Access

- Green OA may be achieved by submitting a version of the article to a repository like arXiv, [DRUM](#), or SSRN
- The final, typeset version of the article does not need to be openly available. A preprint or Author Approved Manuscript (AAM) may be considered appropriate Green OA alternatives
- Allows you to choose your publication venue without restriction as well as the mechanism for making your content open, considering audience, costs, etc.
 - Some negotiation and/or amendment to your agreement with the publisher may be necessary

Why do we keep pushing Open Access?

Benefits to researchers

- Open Access provides a theoretically unlimited audience for your work.
- OA provides access to your research to professionals working outside of academic systems
- OA has been shown to increase citation rates and raise the impact of your work (Pisowar et al., 2018)

Figure 3. Sample slides from a workshop conducted at the University of Maryland, College Park, MD

- Have handouts available, if appropriate (see Additional Resources for example materials).

COOKING METHOD

Use the following as a guide for your open access session. These steps are presented in a suggested order, but they can be modified as needed to most effectively serve the target audience or accommodate time constraints.

1. Start with a welcome and overview of the topics that will be covered.
2. Provide a neutral definition of open access and define the three major OA models (Green, Gold, and Diamond).
3. Discuss the benefits of OA, including knowledge equity and benefits to researchers. With an increase in mandates surrounding open access and years of misconception and/or confusion, many researchers need to hear about the benefits of OA. Start the conversation off on a positive note!
4. Address key OA concerns. The OA landscape is dynamic and frequently changing, which can be confusing to researchers. OA models are not immune to inequity, and the shift from traditional subscription models threatens long-established publications and scholarly societies. Acknowledge the legitimacy of these concerns and provide space for conversation. This section can be tailored to your audience's key areas of anxiety based on the information gathered during preparation.
5. Discuss how participants can engage in open access. Provide demonstrations or information about discovering open access publishing venues, evaluating journals for quality and impact, and avoiding predatory journals. Highlight on-campus resources that support OA publication, like funds supporting APCs (author processing charges), local grants, and read and publish agreements. This can also be a moment to talk about OA mandates, such as institutional open access policies or funder requirements.
6. Review how the library can support the group with OA. Remind them they can work with a librarian to evaluate or select a journal and discuss funder requirements, publisher agreements, and other open publishing options (e.g., repositories). This is also an opportunity to remind participants about any relevant library services and resources that have not yet come up.
7. Leave plenty of time for questions and discussion.
8. Wrap up the presentation and thank everyone for their participation.
9. Send follow-up emails to participants or department contacts with resources, answers to questions, or anything else that comes up during the presentation.
10. If appropriate, organize a follow-up session to take a deeper dive into an area of interest or confusion.

CHEF'S NOTES

- In our experience, faculty are almost always receptive to being presented with well-organized information, and the small-group dialogues are valuable for both the participants and librarians.
- Avoid making assumptions about a group's prior knowledge and attitude.

We have noticed stark differences even between departments in the same discipline.

- For smaller institutions without publishing librarians or departments, or for libraries that may not currently have many OA services or tools, promote non-institutional repositories (see Additional Resources for suggestions).
- If you are short on time, you can still prepare an effective presentation. The supplemental materials referenced in the Additional Resources section are published under a CC0 license and can be used and modified without restriction.

ADDITIONAL RESOURCES

Wilson, M. (2024). A quick guide to academic publishing. Digital Repository at the University of Maryland. <https://doi.org/10.13016/pr4b-rvif>

Wilson, M. (2024). Author contract checklist. Digital Repository at the University of Maryland. <http://hdl.handle.net/1903/32400>

Wilson, M. (2024). Open access presentation template slides. Digital Repository at the University of Maryland. <https://doi.org/10.13016/4ym3-i6cf>

Wilson, M. (2020). Handout: Considerations—selecting and evaluating academic

journals. Columbia University Libraries Academic Commons. <https://doi.org/10.7916/d8-gy2n-zv93>

Wilson, M. (202) Handout: Academic Journals—evaluation, selection, and author rights. Columbia University Libraries Academic Commons. <https://doi.org/10.7916/d8-rn52-xe88>

University of Maryland Libraries. (n.d.) *Repository services*. Retrieved [2-12-2-24] from, <https://www.lib.umd.edu/research/oss/publishing-and-digital-projects/repository-services>