OPEN SCIENCE B R I E F Brief 2: MARCH 2021

To help inform the special education research community, these briefs feature information on prominent open science practices. Content comes from our series of short articles in the DR newsletter, Focus on Research, as well as additional content developed by DR members.



PREPRINTS FOR RESEARCH

Open science is an umbrella terms that refers to practices aiming to make all stages of science more open and transparent. Although some have argued that open science can make research more trustworthy, impactful, and efficient in special education (Cook et al., 2018), there is a lack of clarity in the field about what open-science practices are, their primary benefits and potential obstacles, and how to access resources for implementing them. In this brief, we discuss preprints.

What are Preprints?

Preprints are manuscripts that are freely accessible prior to or instead of being published in a traditional journal (Speidel & Spitzer, 2018). As the name suggests, preprints are often posted prior to being submitted to a journal for publication. However, authors may also post freely accessible papers that are never submitted for publication, or, in some situations, after the papers have been submitted to or published in journals. When a preprint is posted, it receives a digital object identifier (DOI) and is time-stamped. In addition, preprint authors can determine what type of license to utilize for the manuscript (see Figure 1; ASAPbio, n.d.). In general, a CC BY license that allows others to use the manuscript with proper attribution is recommended (Speidel & Spitzer, 2018).



What are the Benefits of Preprints?

Preprints allow for manuscripts to be accessed freely by anyone with internet access. Moreover, when authors post a preprint prior to submitting the paper to a journal, the paper is available sooner than it would be as a traditional journal article (ASAPbio, n.d.). Indeed, depending on issues such as whether a paper is rejected by and submitted to multiple journals, and how many rounds of revisions journal editors require before acceptance, a paper may not be available as a journal article for years after it was initially submitted. Preprints are immediately available to anyone in the world with internet access and may be especially useful for practitioners, parents, researchers in developing countries, and others who are unable to access journal publications without paying a fee.

Because preprints are not typically peer reviewed, preprints also enable scholars to disseminate work that might not be published in traditional journals but may nonetheless contribute to research and practice (e.g.,





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services provide the opportunity for readers to provide feedback on posted preprints (Tennant et al., 2018).

In cases where commentary is not possible, readers can contact the authors directly with feedback. This allows for authors to revise and improve their paper based on this feedback before it is submitted to a journal, potentially resulting in a greater likelihood of acceptance and a streamlined peer-review process

(Sarabipour et al., 2019). Additional potential benefits of preprints include (a) articles that are preprinted receive more citations than articles without corresponding preprints (Fraser et al., 2019), (b) readers connecting with authors and forming collaborative relationships (ASAPbio, n.d.), and (c) editors finding high-quality manuscripts that they can invite for submission to their journals (COPE, 2018).

What are Potential Obstacles?

The primary concern about preprints is the lack of quality safeguards in place for what is being shared. The lack of peer review for preprints is a valid concern. Authors can post virtually anything as a preprint, including low-quality and potentially misleading studies. As such, it is important that readers be cautious and critically evaluate preprints and their conclusions. It should be noted that peer review does not guarantee that all peer-reviewed publications are rigorous and trustworthy. Indeed, many problematic studies that are later retracted have been published in journals after going through peer review (e.g., Wakefield et al., 1998).

Additionally, there are fears that posting a preprint may introduce a risk of the manuscript being "scooped." (i.e., a reader using the ideas in the preprint to write and publish a paper without providing attribution to the original authors). However, there is no evidence of scooping increasing due to posting a preprint (ASAPbio, n.d.). This is partially due to preprints being timestamped and given a DOI when posted (Kaiser, 2017). In fact, preprints allow for establishing an objective timeline for idea development. Indeed, preprinting offers a sort of scoop protection (Sarabipour et al., 2019).

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- Publisher copyright and self-archiving policies through SHERPA/RoMEO. http://sherpa.ac.uk/romeo/index.php
- PREreview club information. The website contains information on how to start a club and how to teach important peer-review skills. https://www.prereview.org/users/8850/articles/1 98235-welcome-to-prereview
- Preprint template from OSF. A quick and easy way to format a preprint before posting on a repository. ttps://www.prereview.org/users/8850/articles/19 8235-welcome-to-prereview
- Newly launched EdArXiv. A preprint repository for educational research. https://edarxiv.org/
- Information on licensing your preprint through CC BY 4.0 from Creative Commons. https://creativecommons.org/

 List of preprint servers https://researchpreprints.com/preprintlist/

Authors may also be concerned that posting a preprint may prohibit the manuscript from being considered for publication in a journal. In reality, many journals accept manuscripts that have been preprinted. To illustrate, 67.7% of preprints between 2013 and 2017 were published in peer-reviewed journals (Fraser et al., 2019). However, there are journals that either do not accept submissions that were previously preprinted or have unclear policies about accepting preprints. It is important for journal editors to adopt preprint policy guidelines.

Figure 1

How Open is your Preprint?

How open is your preprint?

The license you choose has a big impact on how your work will be shared & reused.

The Creative Commons (CC) licenses described here break down the barriers to sharing by communicating rights and permissions up front with everyone.



Remember...

- All CC licenses require reusers to indicate if changes have been made, which alerts others that the work as modified is not the same as the original.
- As long as you retain the copyright in your work, you can always grant additional permissions on an individual basis. This includes giving
 permission for someone to reproduce or modify your work, commercialize your work, or transferring copyright to a journal or signing a
 license to publish agreement.
- Licenses are permanent, but don't stop authors from releasing other versions under other licenses.
- Professional norms for citation and plagiarism apply regardless of how content is licensed, and even for works dedicated to the public domain under CC0. Often, those norms are more restrictive than the attribution requirements of CC licenses.
- Fair use and other limitations and exceptions apply regardless of which license is selected.

Ref	erences	CC icons from	See original at
1.	https://grants.nih.gov/grants/guide/notice-files/NOT-OD-17-050.html		
2.	http://www.soros.org/openaccess/boai-10-recommendations		
3.	https://creativecommons.org/share-vour-work/public-domain/cc0/	https://commons.wikimedia.org/wiki/File.Open_A	Creative Commons Attribution

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- 1. EdArXiv is specific to education https://edarxiv.org/submit
- 2. Sage is complementary to peer-reviewed journals https://advance.sagepub.com
- **3. Preprints** is another option not linked to education or journals https://www.preprints.org
- 4. Creative Commons is the most frequently used organization to copyright your academic work https://creativecommons.org
- 5. Now you can post to social media, get feedback, and find collaborators!.



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