

Implementing the TOP (Transparency and Openness Promotion) Guidelines in a scientific journal: Challenges and consequences

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The TOP Guidelines

- Published in Science in 2015 (<https://www.science.org/doi/10.1126/science.aab2374>), the Transparency and Openness Promotion Guidelines (<https://osf.io/ud578>) include eight modular standards, each with three levels of increasing stringency. Journals select which of the eight transparency standards they wish to implement and select a level of implementation for each. These features provide flexibility for adoption depending on disciplinary variation, but simultaneously establish community standards.

Who Can Use This Tool

- **Authors:** Know what to expect or choose where to submit.
- **Reviewers:** Can quickly see what items are to be included.
- **Editors:** Find examples of best practices from peer journals or from other disciplines.
- **Readers:** Know what steps journals are taking to promote transparency.
- **Publishers:** Compare steps that are being taken across communities.
- **Funders:** Encourage submission to journals that are making progress toward open science.

The TOP Guidelines are a recognized standard in publishing and funding

- With over 5,000 signatories, the TOP Guidelines are a widely used tool for implementing open science practices.
- Journal signatories (<https://osf.io/y2rr6>) have expressed their support of the principles of openness, transparency, and reproducibility, expressing interest in the guidelines and commit to conducting a review within a year of the standards and levels of adoption.
- Organization signatories (<https://osf.io/xb8fw>) have expressed their support of the principles of openness, transparency, and reproducibility and encouraging associated journals to conduct a review of the standards and levels of adoption.
- As of 2020, TOP is no longer adding signatories to these lists.

The European Journal of Psychological Assessment



- A brief introduction
 - EJPA is the official organ of the European Association of Psychological Assessment (EAPA)
 - Sponsored by the International Association of Applied Psychology (IAAP, Division 2)
 - Published by Hogrefe
 - Current Editor-in-Chief: Prof. Dragos Iliescu

Scope

We're interested in:

- Papers on all domains of psychological assessment as well as on the assessment process
- Papers reporting the construction of new measures or a considerable advancement of an existing measure
- Review papers and case studies that result in innovative research questions in assessment and decision-making
- Papers on psychometric methods that have a clear bearing on assessment research or practice
- Papers on the validation of translated measures that add to the existing literature, preferably by providing new validity evidence and give sufficient additional insights with respect to the comparability of the translated scale to the original scale

We do not publish:

- Test reviews

Some facts and figures

Manuscript information	
Number of published issues per year	6
Acceptance rate (2020)	10-15%
Desk rejection rate	+/- 50%
Average time to first decision (2020)	23.1 days
Number of submissions per year	300-350
Average time for publication to be available online	6 months
Average time for publication to be available in print	1.5 years

History of TOP in EJPA

- In 2017, EJPA took the first steps toward increasing openness, transparency, and accountability by making the submission of the inputs and outputs of analyses from statistical software packages mandatory (latest upon acceptance) for all submission types (Greiff, 2017).
- A year later, in 2018, EJPA introduced the registered report (RR) format (see Greiff & Allen, 2018 for a discussion of the benefits of RRs).
 - EJPA was the first assessment journal to introduce the RR format and the first to publish a RR (Kember & Williams, 2020).
- In 2020, EJPA introduced two new open science initiatives:
 - (1) the adoption of Transparency and Openness Promotion (TOP) standards,
 - (2) the awarding of badges for open practices.

Editorial

Introducing New Open Science Practices at *EJPA*

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What Is Open Science and Why Is It Important?

The Open Science movement aims to make scientific research open to all levels of society (Woelfle et al., 2011). It involves practicing science in a manner that allows others to collaborate and contribute and that makes research data and materials freely available under terms that enable

reporting on the construction of new measures or advancements on existing measures in all domains of psychology. We are cognizant of the fact that our field is not immune to the threats posed by the replication crisis and, more importantly, that we have a responsibility to address it as best we can. In 2017, *EJPA* took the first steps toward increasing openness, transparency, and accountability by making the submission of the inputs and outputs of analyses from statistical software packages mandatory (latest upon

Table 1. Summary of *EJPA*'s TOP Requirements

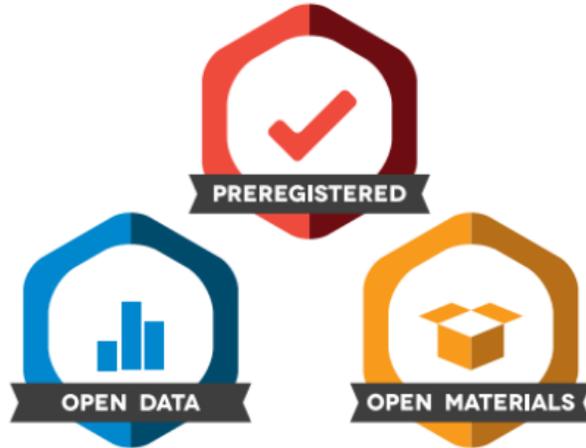
TOP Guideline	Number	Level Adopted by <i>EJPA</i>	Requirement
Citation Standards	TOP#1	Level 2: Requirement	If authors use existing data or materials, the appropriate citation must be provided in a manner that is consistent with our author guidelines.
Data Transparency	TOP#2	Level 1: Disclosure	Authors must state whether data are available, and, if so, where to access them.
Analytic Methods (Code) Transparency	TOP#3	Level 1: Disclosure	Authors must state whether code is available, and, if so, where to access it.
Research Materials Transparency	TOP#4	Level 1: Disclosure	Authors must state whether materials are available, and, if so, where to access them.
Design and Analysis Transparency	TOP#5	Level 2: Requirement	Authors must adhere to <i>EJPA</i> 's design transparency standards for review and publication.
Study Preregistration	TOP#6	Level 1: Disclosure	Authors are required to state whether preregistration of study exists, and, if so, where to access it.
Analysis Plan Preregistration	TOP#7	Level 1: Disclosure	Authors are required to state whether preregistration of study with analysis plan exists, and, if so, where to access it.
Replication	TOP#8	Level 3	<i>EJPA</i> encourages replication studies and offers Registered Reports for replications as a regular submission option.

What are Open Research Badges?

Open Research Badges, from the Center for Open Science, are a way you can gain recognition and reward for taking advantage of the new transparent choices Wiley journals offer, such as [data sharing](#) and [Registered Reports](#). When you're considering a journal to publish your work in, they're a signal to you that the journal values open research, and when you adopt a transparent practice, you'll get a badge appearing on your article. There are three types of Open Research Badge:



- **Open Data Badge** - authors choosing to share their study data receive an "open data" badge on their article
- **Preregistered Badge** - authors choosing to preregister their study design (perhaps via a Registered Report with the same journal) receive a "preregistered" badge on their article
- **Open Materials Badge** - authors who make their materials available to other researchers receive an "open materials" badge on their article

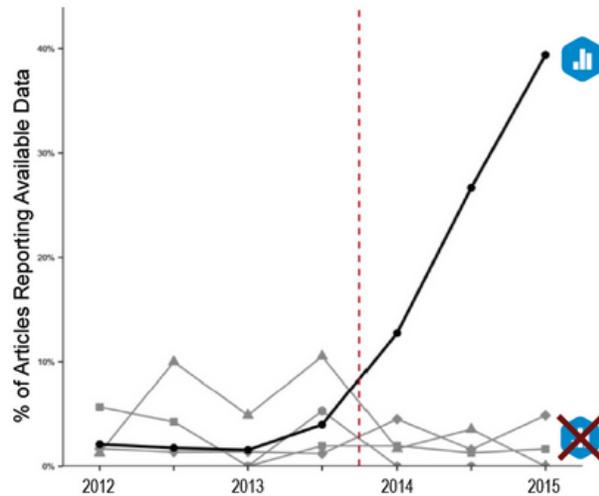


What are Open Science Badges?

- Badges to acknowledge open science practices are incentives for researchers to share data, materials, or to [preregister](#)
- Badges signal to the reader that the content has been made available and certify its accessibility in a persistent location.
- Currently, over **75** journals offer Open Science Badges to signal and reward when underlying data, materials, or preregistrations are available, see below.

Badges seem silly. Do they work?

- Yes. Implementing badges is associated with increasing rate of data sharing ([Kidwell et al, 2016](#)), as seeing colleagues practice open science signals that new community norms have arrived.
- For this to occur, badges must be visible on the table of contents and authors must be consistently asked to participate. See the current issue of [Psychological Science](#) for an example of how these new norms look in practice.



Alright, I'm on board. What are the next steps?

- Each journal may choose to award badges based on a simple author [disclosure statement](#) or through [independent peer review](#).
- The badges are free to use with attribution of their source. Download the images and get started now: <https://osf.io/tvyxz/files/>
- We offer examples of how to display badges on publications. As long as the badge image and [disclosure statement](#) are presented, you can display them any way you like.

Current status

- In print, the first badges have appeared only with Issues 1, 2022.
- In 2022 we have awarded 23 Open Materials badges and 27 Open Data badges.
- Preregistration Plus Analysis Badge was introduced in 2022 and appears for the first time in the SI that was published as issue 6/2022 - we awarded in 2022 (in print) 3 Preregistration badges.
- In 2023 we awarded (in print), 4 Open Data badges, 4 Open Materials badges, in the first issue/2023.
- For advance articles, we now have:
 - 33 Open Materials badges
 - 30 Open Data badges
 - 2 Preregistration badges

Conclusions

- Submission rates have gone down with ~30%, quality of submissions has increased.
- Authors are malleable - they adhere if nudged, or pushed.
- Badges work - authors are competitive - they want to stand out, root for the badges, go the extra mile to get them.
- Nobody else really cares ... :))
- ... unless this is also coupled with a social media effort in disseminating said effort.
- ... but editors and publishers may not want to become media outlets.

Thank you!

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