Peer Review 101: Building a Reputation as a Reviewer

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Taking part in the review process is critical to developing a scientific career. Here’s what you need to know to get started.

As a young scientist, when you publish your first papers in peer-reviewed journals, you announce your presence to the scientific community. In this way, you are in the process of becoming an expert of your field. Eventually, you will also receive requests from journal editors to review manuscripts submitted by other scientists. These invitations are both a privilege and a responsibility.

Serving as a reviewer helps you build relationships with journal editors; it improves your critical thinking abilities; it gives you a better understanding of the state of the art in your field; and it enhances your writing skills so you can better present your scientific ideas. In addition, good reviewing is recognized and rewarded by colleagues and scientific societies.

Unfortunately, however, it is not an innate skill. In fact, most scientists learn it only by performing reviews repeatedly. Nevertheless, there are a few tips we can offer to help you get started. The fundamental principle to keep in mind is the notion of reciprocity. You should review a manuscript in the same way that you would want yours reviewed.

For your first paragraph, we suggest summarizing the main points and goals of the manuscript. If you cannot pinpoint the aim of a paper from its abstract, the manuscript is likely not ready to be published.

Next, mention the positive aspects of the work. Too many reviewers focus only on the negative. Take the time to point out the manuscript’s strengths. It is always gratifying for scientists to receive recognition from their colleagues, and this is particularly true for young researchers who are working to build confidence.

Over the next several paragraphs, discuss the major negative aspects of the manuscript. Be critical, but also be respectful; make constructive and objective comments. Distinguish clearly between incorrigible errors and small, forgivable ones. Evaluate all elements of the paper: the title, the abstract, the body of the text, the figures and tables and its captions, as well as the bibliography.

You might end by making suggestions for improving the manuscript. Remember that peer-review should be a constructive process for all involved—authors, editors, reviewers and the general community.

The structure of a review may change depending on the journal, the paper, or the editor, but your fundamental goal is always the same: Balance the strengths and weaknesses of the manuscript with fairness and integrity. Here are some other best practices.

Respond promptly to requests. This is quite important—whether or not you accept the invitation to review. One of the worst things you could do is ignore a request for review, along with accepting it and then not honoring the request. If you are unable or unwilling to accept, it only takes a couple of minutes to notify the editor of your decision. The editor will appreciate it if you can suggest other potential reviewers.

Complete the review on time. This is crucial to guarantee the timeline of the journal. It is unfair to authors (and editors) to be delayed by tardy reviewers. If
you need extra time, contact the editor as soon as you can. Most are flexible and will give you additional time in exchange for a good review.

Do not review a manuscript on an unfamiliar topic. Stick to areas that you know well in order for your reviews to be the most credible and useful.

Enumerate your comments and suggestions. Organize your thoughts in a way that will be easy for someone to absorb and follow up on.

Read the journal’s review criteria. Spend time on the journal and/or publisher’s website so you understand what is expected of both authors and reviewers. This will help to ensure that your review is aligned with the publisher’s expectations.

**Be specific.** Indicate as precisely as you can what the problems are and how they may be overcome.

**Focus on the science.** Avoid effortless reviews that comment only on minor grammatical errors, typos or language problems. However, if a manuscript is written in language so poor that it is difficult to understand, let the editor know.

**Follow up.** If you are reviewing a revised manuscript, make sure the authors actually made the changes recommended in the first review.

If you are interested in reviewing, let your academic advisor know. He or she probably gets requests regularly and will be grateful for your initiative. You can also contact the topical editors of journals you have published in—or introduce yourself to them at a conference. Researchers are often invited to review manuscripts as a direct result of their own published work.

Good reviewers are not as easy to come across as you might think. In fact, OSA’s editors often resort to OSA member profiles to find reviewers. Your profile tracks your personal record as a reviewer, which editors can refer to in order to determine how prompt you are at reviewing and responding to review requests. Start by updating your member profile today.

Julio Gutiérrez-Vega (juliocesar@itesm.mx) and Carlos López-Mariscal are both experienced reviewers and members of the Optics & Photonics News Editorial Advisory Committee. Gutiérrez-Vega is also a topical editor for OSA’s peer-reviewed open-access journal *Optics Express.*

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