Reviewers wanted

Peer review is surely the most important process in the editorial management of manuscripts received by a scientific journal. Not only does the future of the manuscript depend on it, but also the time that authors must wait to know the evaluations of their papers by the colleagues who kindly revbiew them. The peer review process begins after pre-evaluation by the editorial team and with the selection of reviewers who are experts in the topic addressed in each manuscript. These people review the paper and send the editorial team a report with their impressions, recommendations and their judgement on whether the article is publishable in the journal in question according to their criteria (Levkoe et al., 2019).

ORIGIN AND EVOLUTION OF THE PEER REVIEW PROCEDURE

The practice of peer review was first documented in Syria in the 9th century, as a method to evaluate the care of recovering patients by physicians (Burnham, 1990). In the 17th century the procedure underwent a resurgence as a method of discussion and validation of scientific findings (Fitzpatrick, 2009), which was consolidated a century later with the publication of the journal Medical Essays and Observations launched by the Royal Society of Edinburgh from 1743, which promoted peer review as a method of evaluating articles prior to publication (Kronick, 1990). However, it was not until the mid-20th century that it became established as a standard practice in scientific journals (Benos et al., 2007).

Peer review has evolved over time and, in many cases, the adoption of one form or another depends on the area of knowledge involved. Traditionally, in natural science research, the so-called single-blind procedure has been used: the reviewers know the identity of the authors, but the authors do not know the identity of the reviewers. However, in the context of educational research, the most common procedure is the double-blind review, in which none of the parties involved know who the others are (Patel, 2014).

BENEFITS AND CRITICISMS OF PEER REVIEW

The benefits of peer review are evident and its use by journals is not only more than justified but also constitutes a quality criterion when they are evaluated. Overall, this system acts as a mechanism to maintain the integrity and credibility of scientific publications (McNair, 2019). The reports sent to the journal by the reviewers not only serve to assess whether the manuscript is viable for publication

or not, but more importantly, the authors of the manuscript receive information that can be very valuable for improving the work before publication or sending it to another journal if necessary (Benos et al., 2007; Levkoe et al., 2019). Finally, the peer review process provides the opportunity to complement the authors' perspective with those of the people who have reviewed the work, which can help to minimise possible personal biases (Ab-Rahman et al., 2015).

Despite these advantages, peer review also has its critics. One of the most frequent is its subjective nature, which inevitably leads to biases and inconsistencies in assessments (Gupta, 2017; Levkoe, 2019). Indeed, there are studies showing that inter-reviewer agreement is only slightly above what would be expected by chance (Kravitz et al., 2010; Marcoci et al, 2022). Moreover, biases of a different nature have been found, such as gender bias in male and female editors, the effects of which are increased by the lower representation of women in editorial teams (Marcoci et al., 2022). Other types of biases have also been detected, such as institutional partialities, in which manuscripts from prestigious institutions receive better reviews (Guida, 2018), or racial biases, when it comes to the selection of reviewers (Cooke et al., 2024). In fact, the issue is so complex that there have been some proposals pointing to the need to train and specialise reviewers (Patel, 2014). Although peer review is intended to promote fair publication, situations have been encountered in which reviewers make unsubstantiated, biased and/or aggressively biased assessments, which, not surprisingly, also present a problem in the editorial process (Farias et al., 2023). Finally, the literature has highlighted that the lack of incentives for manuscript reviewers is also a problem (Armstrong, 1997).

OPEN PEER REVIEW AS AN ALTERNATIVE

In response to the weaknesses that have been found in peer review, a wide variety of alternatives have been suggested, which have been grouped together under the term Open Peer Review (OPR). This umbrella includes all those forms of review that are aligned with Open Science, which includes the identities of reviewers and the reports they issue being made public, facilitating greater community participation in the manuscript review process (Ross-Hellauer et al., 2017). This review modality has some advantages over the traditional style, but also some disadvantages (Ross-Hellauer, 2017). Among the advantages, these new procedures are expected to have a positive impact on the quality and accuracy of review reports. In addition, open participation could help the editorial process by reducing the level of mediation by journals to find reviewers. Finally, the fact that reviewers' identities are known makes it easier for them to get recognition for their contributions to the final version of the paper. This same philosophy may have disadvantages, such as the fact that some people find it difficult to be critical of higher status colleagues or that reviewers are

reluctant to have their reports made public. In addition, since this scheme suggests a greater degree of interaction between reviewers and authors, review times may increase and the likelihood of reviewers with a conflict of interest may increase.

WHY REVIEW MANUSCRIPTS?

Reviewing manuscripts is a duty to the scientific community. When we submit our own work for consideration by a journal, we value very highly that the response times are short and that the reports we receive are as complete as possible. This is also what our colleagues expect when we receive an invitation to review a paper (Borja & Elliott, 2024). However, in addition to the undeniable commitment to the community, reviewing a manuscript allows us to receive a few benefits, such as the fact that reviewing other people's work allows us to improve our own writing skills, our analytical thinking and communication skills, among others (August & Brouwer, 2024). In addition, reviewing articles allows us to be continuously updated on new lines of research and emerging methodologies that can enrich our own work (Mbuagbaw et al, 2013). In parallel, some previous research has highlighted the benefits for young researchers (McNair, 2019) and, indeed, co-reviewing manuscripts between PhD supervisors and their doctoral students has been shown to have benefits for both the latter (Garbati, & Brockett, 2018) and their PhD supervisors (Burmeister, 2015).

AN INVITATION TO PARTICIPATE

The selection of reviewers for a manuscript is undoubtedly the bottleneck in the management process of a scientific journal. The high number of articles published each year worldwide means that more people are needed to review papers submitted to journals, reaching very unsustainable levels (Helmer et al., 2020). Besides, some studies have shown that review workload accumulates for some people, which has even led to the coining of the term 'reviewer fatigue' (Waltman et al., 2023). For example, in the context of biomedical publications, 20% of researchers carry out between 69% and 94% of reviews (Kovanis et al., 2016). Indeed, whereas fifteen years ago, the average number of invitations that needed to be sent from journals to engage reviewers for an article was 6 (Donaldson et al., 2010), more recent studies have found that it can now take up to 15 invitations on average (Fiialka et al., 2020).

In this complex context, at Educación XX1 we can do nothing, only thank our reviewers for the work they do. Their contributions to the editorial process are extremely valuable and, as we said at the beginning of this editorial, help to ensure

the quality of the works published. We hope that, in addition, these review papers will help them to deepen their research and learn from the community. We would also like to encourage other researchers to join our community by contributing future manuscript reviews. From our journal, we are confident that their efforts will be of benefit to us all.

Diego Ardura
Editor in Chief
Educación XX1

REFERENCES

Ab-Rahman, M. S., Zain, S. M., Nor, M. J. M., Ihsan, A. K. A. M., Zaharim, A., Sukarna, M. F., & Hipni, A. (2015). Achieving quality in research through stimulated publication technique. *Asian Social Science, 11*(3), 14-25. https://doi.org/10.5539/ass.v11n3p14

Armstrong, J.S. (1997) Peer review for journals: Evidence on quality control fairness, and innovation. *Science and Engineering Ethics, 3(*1),63-84. https://doi.org/10.1007%2Fs11948-997-0017-3.

August, E. T., & Brouwer, A. F. (2024). How to write an effective journal peer review using a staged writing approach: a best-practice guide for early-career researchers. *International Journal of Epidemiology, 53*(6), dyae154. https://doi.org/10.1093/ije/dyae154

Benos, D.J., Bashari, E., Chaves, J.M., Gaggar, A., Kapoor, N., LaFrance, M., Mans, R., Mayhew, D., McGowan, S., Polter, A., Quadri, Y., Sarfare, S., Schultz, K., Splittgerber, R., Stephenson, J., Tower, C., Walton, R. G., & Zotov, A. (2007). The ups and down of peer review. *Advances in Physiology Education, 31*(2), 145–152. https://doi.org/10.1152/advan.00104.2006

Borja, A., & Elliott, M. (2024). Do you want your paper published?–Then referee others! The view from seasoned editors. *Estuarine Coastal and Shelf Science, 310*, 109006. https://doi.org/10.1016/j.ecss.2024.109006

Burmeister, O. K. (2015). Improving professional IT doctorate completion rates. *Australasian Journal of Information Systems, 19*. https://doi.org/10.3127/ajis.v19i0.1073

Burnham, J.C. (1990). The evolution of editorial peer review. *Journal of the American Medical Association, 263*(10), 1323-1329.
https://doi.org/10.1001/JAMA.1990.03440100023003

Cooke, S. J., Young, N., Peiman, K. S., Roche, D. G., Clements, J. C., Kadykalo, A. N., Provencher, J.F., Rahavaan, R., DeRosa, M.C., Lenox, R.J., Robinson Fayek, A., Cristescu, M. E., Murray, S.J., Quinn, J., Cobey, K.D., & Browman, H. I. (2024).

A harm reduction approach to improving peer review by acknowledging its imperfections. *FACETS, 9*(1), 1-14. https://doi.org/10.1139/facets-2024-0102

Farias, M. G. G., & Santos, G. C. (2023). Evaluations of scientific productions: challenges and motivations of editors and reviewers. *Encontros Bibli, 28*, e92858. https://doi.org/10.5007/1518-2924.2023.e92858/54023

Fiialka, S., Trishchuk, O., & Figol, N. (2020). Reviewing articles as a way of professional evaluation of scientific texts: organizational and ethical aspects. *Knowledge and Performance* Management, *4*, 26-36. http://dx.doi.org/10.21511/kpm.04(1).2020.03

Fitzpatrick, K. (2009). Planned obsolescence: Publishing, *technology, and the future of the academy.* NYU Press.

Garbati, J., & Brockett, E. (2018). Students speak out: The impact of participation in an undergraduate research journal. *Discourse and Writing/Rédactologie, 28*, 227-245. https://doi.org/10.31468/cjsdwr.618

Guida, G. (2018). An analysis of scientific research performance in Italy: evaluation criteria and public funding. *International Journal of Economics and Finance, 10*(7), 1-45. https://doi.org/10.5539/ijef.v10n7p45

Gupta, V. K. (2017). Quality control through peer review process in scholarly communication: Review of related literature. *IRA-International Journal of Management and Social Sciences, 8*(3), 248-255. https://doi.org/10.21013/jmss.v8.n3.p3

Helmer, S., Blumenthal, D. B., & Paschen, K. (2020). What is meaningful research and how should we measure it?. *Scientometrics, 125*(1), 153-169. https://doi.org/10.1007/s11192-020-03649-5

Kovanis, M., Porcher, R., Ravaud, P., & Trinquart, L. (2016). The global burden of journal peer review in the biomedical literature: Strong imbalance in the collective enterprise. *PloS one, 11*(11), e0166387. https://doi.org/10.1371/journal.pone.0166387

Kravitz, R. L., Franks, P., Feldman, M. D., Gerrity, M., Byrne, C., & Tierney, W. M. (2010). Editorial peer reviewers' recommendations at a general medical journal: are they reliable and do editors care? *PloS one, 5*(4), e10072. https://doi.org/10.1371/journal.pone.0010072

Kronick, D. A. (1990). Peer review in 18th-century scientific journalism. *Journal of the American Medical Association, 263*(10), 1321–1322. https://doi.org/10.1001/jama.1990.03440100021002

Levkoe, C. Z., Schembri, V., & Wilson, A. D. (2019). Community-Academic Peer Review: Prospects for Strengthening Community-Campus Engagement and Enriching Scholarship. *Engaged Scholar Journal: Community-Engaged Research, Teaching, and Learning, 4*(2), 1–20. https://doi.org/10.15402/esj.v4i2.61745

Marcoci, A., Vercammen, A., Bush, M., Hamilton, D. G., Hanea, A., Hemming, V., ... & Fidler, F. (2022). Reimagining peer review as an expert elicitation process. *BMC Research Notes, 15*(1), 127. https://doi.org/10.1186/s13104-022-06016-0

Mbuagbaw, L., Morfaw, F., Kunda, J. E. L., Mukonzo, J. K., Kastner, J., Zhang, S., Kokolo, M. & Thabane, L. (2013). Tips for charting the course of a successful health research career. *Journal of Multidisciplinary Healthcare*, 163-168. https://doi.org/10.2147/JMDH.S44738

McNair, R., Le Phuong, H. A., Cseri, L., & Szekely, G. (2019). Peer Review of Manuscripts: A Valuable yet Neglected Educational Tool for Early-Career Researchers. *Education Research International, 2019*(1), 1359362. https://doi.org/10.1155/2019/1359362

Patel, J. (2014). Why training and specialization is needed for peer review: a case study of peer review for randomized controlled trials. *BMC Medicine, 12*: 128. https://doi.org/10.1186/s12916-014-0128-z

Ross-Hellauer, T. (2017). What is open peer review? A systematic review, *6*, 588. https://doi.org/10.12688%2Ff1000research.11369.1

Ross-Hellauer, T., Deppe, A., & Schmidt, B. (2017). Survey on open peer review: Attitudes and experience amongst editors, authors and reviewers. *PloS one, 12*(12), e0189311. https://doi.org/10.1371/journal.pone.0189311

Waltman, L., Kaltenbrunner, W., Pinfield, S., & Woods, H. B. (2023). How to improve scientific peer review: Four schools of thought. *Learned Publishing, 36*(3), 334-347. https://doi.org/10.1002/leap.1544