



Writing for publication: Structure, form, content, and journal selection

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Abstract

This article provides an overview of writing for publication in peer-reviewed journals. While the main focus is on writing a research article, it also provides guidance on factors influencing journal selection, including journal scope, intended audience for the findings, open access requirements, and journal citation metrics. Finally, it covers the standard content of a scientific journal article, providing general advice and guidance regarding the information researchers would typically include in their published papers.

Keywords

Writing for publication / Academic journals / Research support / Libraries / Journal selection

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Aims

This article aims to provide an overview of the form, structure, and reporting standards for different types of papers, with a focus on writing for publication in peer-reviewed journals. It will also provide a summary of the different considerations to be made by authors selecting the right journals in which to publish their research, and offer suggestions as to balancing these competing factors. As the specific requirements for structure and content can vary quite significantly from discipline to discipline – as well as from journal to journal – this article is not intended to be exhaustive, nor should it be viewed as prescriptive. Rather, its aim is to provide general advice and guidance, to be adapted where appropriate.

Likewise, this article should not be viewed as a guide whose advice, if followed, will guarantee publication in a researcher's chosen journal. As the pressure to publish is paramount for researchers seeking to progress their careers in academia, rejection rates are high – particularly in journals perceived as more prestigious and impactful – and even a well-written, appropriately structured article which fulfils all reporting standards is not guaranteed acceptance. A recent study which synthesised systematic studies of journal acceptance rates found that somewhere between 35 and 40 per cent of submitted papers are published, meaning that the majority are rejected – although it also noted that there is significant variation between disciplines (Bjork 2019). In light of these statistics, it is worth emphasising

that researchers seeking publication in specific journals should read those journals' instructions to authors, which frequently include lists of common reasons for rejection (Springer Nature 2020, Stahel & Weckbach 2020). This article is intended as a supplement to these instructions to authors – offering general guidance that should help make the process of writing an academic paper, and submitting it for publication, more straightforward and efficient.

Audience

Researchers seeking publication in an academic journal should consider who the potential audience is for their paper. This will help ensure that they pick an appropriate journal to which to submit. Authors should make a list of journals that they themselves read regularly, as there is likely to be significant overlap between their own list, and the reading habits of their peers. Another exercise to help narrow down potential journals to target is to conduct a structured, systematic literature search on the topic of the paper. This search should be done on subject databases. Authors can then make a note of any recurring journal titles in which relevant papers on their topics appear to have been published, as these journals

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are likely to be within the scope of the content of their paper, and are hopefully more likely to be commonly read by other researchers in the specific field. If it is common practice within the discipline to regularly read special issues of journals, these issues may also be another potential place to target for submission, as it may increase the impact and readership of the article.

Journal selection

Journal selection is likely to be influenced by a number of competing factors – some specific to the content of the individual article, others relating to structural, disciplinary or institutional concerns. Authors will need to determine how to weigh up these various factors, depending on their aims in seeking publication. For example, if an author's concern is solely in sharing the findings of their research with the scholarly community, they may be able to afford to be more selective in their choice of journal. In contrast, an author who needs a minimum number of publications in order to contribute to the research profile of their institution by a set date may need to place more emphasis on a journal's swift publication schedule.

Authors may wish to consider the significance of their findings or argument – the more significant, the more prestigious a journal they can select as a place to publish. Individual researchers may not be the most objective judges of the significance of their own work, so if possible it is worth getting a second opinion from a colleague who is not involved in their research. Researchers should also carefully read the journal's guidelines and instructions to authors. These will normally include information about the subjects and research methodologies that the journal accepts. It is a waste of authors' and editors' time to submit an article which is out of scope, and far better to submit to a journal whose aims and content align with that of an author's research. Finally, authors may find that submitting to a journal which publishes special issues increases the impact of their work, as it may mean more researchers in their field seek out that special issue and read it (Conlon et al 2006, Olk & Griffith 2004). For this reason, seeking out such special issues may be a good choice when selecting a journal.

Many authors may need to consider the open access policies and costs at the journals to which they choose to submit. Open access is the 'free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself' (Max-Planck-Gesellschaft 2003). Publishing research open access is increasingly required by funding bodies, and, at universities in the United Kingdom,

research outputs must be open access (or, in some cases, self-archived on an institutional repository) in order to be counted towards the Research Excellence Framework. The website Sherpa Romeo – an 'online resource that aggregates and analyses publisher open access policies from around the world and provides summaries of publisher copyright and open access archiving policies on a journal-by-journal basis' – is a searchable platform enabling authors to clarify the open access policies of any journal in which they seek to publish (JISC 2020). Authors can use Sherpa Romeo to ascertain whether their choice of journal will enable them to comply with their funder's open access or self-archiving policies. It is important to note that articles with multiple co-authors may also be the result of work by researchers funded by multiple funding bodies. Any publications by such groups of authors must comply with all authors' funders' policies. In addition to being a requirement of an increasing number of funding bodies, there is some evidence that open access publication leads to an increase in citations compared to restricted access publication (Gargouri et al 2010, Morillo 2020, Piwowar et al 2018, Sotudeh 2020).

Unfortunately, some publishers do not have authors' best interests at heart. These so-called 'predatory publishers' target authors unfamiliar with standard academic publishing practices. Jeffrey Beall has summarised the common features of predatory publishers, concluding that such publishers tend to have a combination of some, or all the following features:

- A general lack of transparency in terms of operations, author fees, and even geographical location;
- Editors who lack appropriate educational qualifications and institutional or relevant industry affiliations;
- They make false claims regarding impact factors and peer review of submitted articles, and provide minimal or no copyediting;
- They send unsolicited spam requests to potential authors;
- They operate in an unscrupulous or unethical manner regarding copyright (for example republishing authors' articles without consent, or publishing images to which they do not hold the copyright) and retractions (Beall 2015).

Authors seeking to avoid such publishers should never respond to unrequested solicitations to publish received via email. They should also make efforts to investigate a journal's website and publication schedule – are its editors named individuals with relevant credentials and experience in the discipline, and is the journal published according to a regular schedule? These indicate that the journal is flourishing and reputable. The website Think, Check, Submit also provides a comprehensive summary of potential red flags which may indicate a predatory publisher (Think Check Submit 2020).

Finally, authors may wish to consider impact as a factor when selecting a journal in which to publish. There are citation indices such as the InCites Journal Citation Reports provided by Clarivate Analytics, or the Journal Metrics feature in Scopus, both of which will give an indication of a journal's citation metrics. It is important to be aware that each platform will give slightly different metrics, and that a high number of citations does not necessarily imply that a journal publishes good quality research – authors could be citing articles in order to criticise their findings or methodology, for example. For this reason, while it is possible to obtain citation metrics for a journal, these should not be the sole factor determining an author's choice to publish in that journal.

Types of papers

Most types of scientific research methods have set guidelines for their form and content. This means that researchers' study design will to a large extent dictate the type of paper they write, and the information they will need to include when writing up. Most of the standard scientific research methodologies – including randomised controlled trials, observational studies, case studies, diagnostic/prognostic studies, qualitative studies, and systematic reviews – have standard guidelines available to consult on the EQUATOR Network website. The website currently has 446 reporting guidelines, as well as extensions of most of these guidelines (EQUATOR Network 2020). It is recommended that researchers consult these guidelines during the planning stages of any projects, as this will help ensure that they are aware of the information they will need to report in their published papers, and enable them to prepare to record and document this information over the course of their project's completion.

Not all researchers will be seeking to publish in an academic journal. If the intended audience is the general public, a more accessible platform and format is more appropriate. Researchers seeking public engagement with their research should consider where it is likely to make the greatest impact. This might mean writing an article to be published in the comment section of a newspaper or media website. The Conversation, 'an independent source of news and views, sourced from the academic and research community and delivered direct to the public,' is another possibility (The Conversation 2020). These types of papers aimed at a non-specialist readership have their own style and structure. Researchers seeking this type of publication should read comparable articles – preferably those from their own discipline, published on their chosen non-academic platform – in order to gain an understanding of the stylistic conventions and typical content they will be expected to include.

Structure

The structure of a published article, particularly medical, healthcare and scientific research, is to a large extent dictated by the research methodology, and the reporting standards expected for that particular methodology. However, while different disciplines and journals may have some variation in terms of form and content, there is generally a common structure and flow to published papers. Each component of the paper generally has some core content which it should contain, and this can be confirmed by checking the appropriate reporting guidelines available on the EQUATOR Network website (EQUATOR Network 2020).

The introduction of the article should contextualise the research. This section should situate the findings of the paper in the existing research landscape, and demonstrate that the authors are aware of relevant studies in their field. It should provide some indication of how the findings of the paper have built on previous studies, and how they diverge. The introduction is also the place where authors should state the hypothesis or central question of their research.

Writing of the methods section can begin while experiments are still in process, while data collection is still being undertaken, or otherwise prior to the research being completed. This is also the point at which ethical approval – for animal use or human participants, if relevant – needs to be finalised, as this information will need to be included in the published paper. The methods section of the paper needs to be detailed enough for others to follow, due to the requirement that scientific research should be reproducible.

The results section should be clear and brief, and if tables, figures, graphs or charts are used, these need to be straightforward and easy to interpret. Detailed analysis can be left for the discussion section. Researchers should use the discussion section to reflect on weaknesses, problems and discrepancies in their research – these should not be left out or ignored. The discussion and conclusion sections are also used to explain the significance and implications of researchers' findings, and offer suggestions as to how the research should be followed up.

Most published papers will have a bibliography or reference list. Authors must take steps to ensure that the references are relevant, recent, and cited consistently, according to the journal's citation style. There may be a valid reason why there is no current research on the topic (and thus no recent articles cited), but if so, this should have been explained in the text of the article.

The title and abstract of the article are in many ways the most important components: they are the part which the

majority of people will read, and so they need to provide an accurate description of the full text of the paper. Some journals have requirements for length and content of titles and abstracts, and these must obviously be adhered to. Beyond this, the title should indicate the research methodology and topic of the paper. The abstract should provide a summary of the objective, methods, results, and significance of the research. Most researchers are likely to find published papers through an electronic search (either via subject databases, or search engines such as Google). For this reason, ensuring that the title and abstract contain the kinds of words likely to be included in a keyword search will help to increase the chances of other researchers finding the article.

Conclusion

Publishing papers in academic journals is the mechanism by which scholarship moves forward, and is also important to researchers in terms of its impact on their career progression. Therefore, researchers seeking publication should carefully consider all relevant factors – including journal scope, open access policies, and citation metrics – when selecting a journal in which to publish. Academic publications should adhere to established reporting guidelines, and convey the relevant information about a study's findings with clarity and effectiveness. Following the advice provided in this article should not be viewed as a guarantee of acceptance for publication. Rather, it is intended as general guidelines, a starting point to be adapted and reframed where appropriate.

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