

Publishing success is built on strategy, foresight, attention to detail

Publish or perish is here to stay. English Editorial Services offers advice on how to thrive.

Scientists' success in publishing is increasingly the basis upon which grants are awarded, promotions decided, and limited resources allocated. A series of good publications in leading international journals can move a researcher on to the next level in his or her career, whereas failure to publish can stall a career before it begins. In short, "publish or perish" is here to stay.

Clever scientists who publish in high-impact journals know their success is not a matter of random luck. They think strategically and are meticulous about details. They understand that no journal is obliged to accept their work and that even doing great science does not, in itself, assure publication.

A strategy for successful publishing begins with the science itself. Widely recognized scientists do research that attracts an audience. Their articles present work that is original and interesting. It poses and answers questions that are broadly relevant and important to others in their fields – and perhaps even beyond their own fields.

The time to start writing your article is the day you begin formulating the aim and design of the study. It is both efficient and logical that the paper and the study should be conceived and created together. One might argue that this overemphasizes publishing to the detriment of the science, but scien-

tific knowledge only has value when it is shared with others. If a study is not expected to produce valuable findings, then there is little point in undertaking the research in the first place.

The target journal should be chosen early and carefully. Everybody wants to publish in a journal with a high impact factor, but that should not be the only consideration. If you aim too high, you will waste time that could have been spent in getting into a more appropriate journal. If you aim too low, targeting a journal because it is relatively easy to get into, then you underrate your work. Think about the audience you want to reach.

If you aim for the wrong journal altogether (and therefore wrong audience), then you waste your time and squander your valuable research findings.

A scientist needs to read widely in his or her field (and related fields) in order to select the most appropriate journals to target, to recognize what are the important subjects and questions to study (and not study), and to see what it is that editors want. If your institution provides limited access to the relevant journals, try to visit other institutions with more resources or share with colleagues. Also, much information can be found on the internet pages of journal publishers. ►

A strategic approach to publishing success means...

- doing high-impact science that attracts an audience.
- posing (and answering) a compelling research question.
- planning your article and designing the study at the same time.
- targeting the most appropriate journal.
- precisely following that journal's Instructions for Authors.
- structuring the paper logically, including in each section only what belongs there.
- writing clearly and concisely.
- giving the references the attention they deserve.
- cooperating with your peers in critiquing one another's work.
- using a professional editing service.
- writing a convincing cover letter.
- responding positively, thoroughly and politely to reviewers' comments.
- reading widely in your field (and related fields).
- making yourself well known.

Impact factor

A tool to use carefully

A journal's impact factor is an index based on the frequency with which an "average" article in that journal is referenced in other scientific publications in a particular year or period. Devised in the 1960s by the Institute for Scientific Information (now Thomson Scientific), the factors are published annually in ISI's Journal Citation Reports.

Impact factor is a tool commonly used when selecting journals for library collections. Journals cited often will generally contain articles with higher impact and are therefore of most interest to researchers. Advertisers use impact factors to decide where to promote themselves. Impact factor is also increasingly used to assess the productivity of individual scientists and institutions, and so it is a criterion for job promotion and funding.

Impact factors should be used with care, as many details influence both the index calculation and citation rate. It is not an infallible predictor of either journal quality or the quality of science published. A specialized journal with low circulation, for example, will never obtain a high impact factor – no matter how good is the research it publishes. If all the journals in its subject area have low circulation, however, then that journal's relative standing will be more meaningful. For this reason, a journal's rank should only be considered in the category of its peers.

Despite the method's shortcomings, it has gained widespread acceptance as an indicator of journal quality due to its broad coverage (9,000 science journals from 60 countries), availability, and objectivity. ■

English Editorial Services

specializes in editing articles for publication in life sciences journals. For more information, please visit www.EnglishEditorialServices.com.

► It cannot be overemphasized that your article should be written and prepared precisely to meet the target journal's standards. That means downloading that journal's Instructions for Authors from the web site, then following these carefully. Most journals will immediately reject any article that substantially differs from their standards regarding content, structure, layout, length, standard of English, references, abbreviations and special terminology.

High-quality journals will only consider high-quality articles. That means the paper must be well organized, well written, and edited to a high standard. To maximize an article's likelihood of being accepted, the quality of English must be at a very high level. No journal editor will spend time sorting out poor English.

The author should write in a concise, logical and focused style. While a certain amount of technical language is unavoidable, one should avoid using jargon unnecessarily. Two or three short sentences are generally preferable where one long and convoluted one might be used. Because good writers are more likely to get published than poor writers, smart scientists work to improve their writing and develop their English-language skills.

In the English-speaking part of the scientific community, articles may be written slightly differently and information presented in a different manner than is usual in some other countries. English is the standard language for top scientific publishing, and there is no choice but to accept this reality. The best course is to learn about these differences by carefully reading and studying respected scientific literature in English.

Non-native speakers of English must be extremely careful about even the appearance of plagiarism. In countries like the US and UK, people are more sensitive about this than in many other cultures. If an editor or reviewer feels an author has crossed the line between innocent borrowing and plagiarism, he or she will not wish to be associated with the paper.

Every non-native speaker of English should have his or her articles professionally edited prior to submission. To ensure resources will be available for this, it is wise to budget adequate funds for editing when making grant applications.

In selecting an editor, be aware that "native English speaker" is not a synonym for "professional editor" and certainly not for "science editor." Asking or hiring an untrained English speaker to correct scientific articles often results in a text that is worse rather than better.

Great science is not created in isolation. Subjecting one's work and findings to scrutiny is fundamental to the scientific method and one of the reasons for publishing in the first place. Asking your colleagues to review your study design before starting the research – and the first and final drafts of the article before it is submitted – is always a good idea. You should be open to and appreciative of your peers' critiques, and you must also be ready to reciprocate by reviewing their work.

One should not be shy, either, about contacting journal editors before an article is prepared. Editors are busy, but they are ►

► accustomed to communicating with authors. Many journals have optional pre-submission processes. Early feedback from the editor can save you time and frustration (especially if your proposed article is not appropriate for that journal), and it can help you to prepare a better paper the first time.

Your article should be submitted exactly in accordance with the journal's instructions (typically via the internet). Accompany your submission with a brief yet strong and convincing cover letter. The letter should state concisely the key points of your study and why it advances the present state of knowledge. You may also suggest to the editor some appropriate reviewers with knowledge of the specific subject.

An accepted article will almost always require some revision. You will be wise at this stage to keep an open mind, a positive attitude, and a thick skin. Bear in mind that reviewers generally want the paper published, too. Their advice is intended to improve the paper and not to attack you personally. Always respond to reviewers' comments positively, thoroughly and politely. When you are ready to send the article back, accompany it with a detailed explanation of how you addressed each point raised. In the exceptional case that you do not address a reviewer's suggestion, you must convincingly explain why.

Should your paper not be accepted for the journal of your choice, do not be discouraged. This happens to the

best scientists. Take a day or two to calm down and deal with the rejection, then move on. Be objective and learn from any advice given. In many cases, it may simply be a matter of reassessing the choice of journal. After addressing any weaknesses pointed out by the reviewers, the paper can be reformatted and submitted to another journal.

Finally, in modern science, publishing is not just about what you know, but also who you know. Successful scientists must network internationally. That means corresponding and collaborating with your peers in other countries, attending conferences, serving as a reviewer, and volunteering in your professional organizations. ■

Write to publish – get every section right

All scientific papers follow the same basic format of title, author(s), abstract, introduction, methods, results, discussion and references. That sounds simple enough, but there are plenty of opportunities to get things wrong.

The title and abstract will be the first – and perhaps only – parts read by the editor or reviewer. These must be strong to attract the reader's attention. Every word should be there for a purpose.

The abstract should be written last, when you know your article so well you practically can recite it from memory. You typically have 250 words to work with here. Use them well. While presenting only the key elements of the study (including the aims, main results, key discussion points and conclusion), you should clearly emphasize what is novel in the paper.

The author(s) should be the person, or persons, who actually undertook the design, analysis and write-up of the study. Every member of a survey team should not be included here, for example. If required, such names can be in an acknowledgements section.

The introduction states why the study was needed and thus undertaken. It should pose a compelling

question then review relevant literature supporting the importance of that question and the study. It should not contain a long-winded history of the subject to date, nor should it reflect the complete library of literature the author has collected on the subject. Authors commonly make this section much too long.

The methods section states how the study was undertaken. All relevant criteria, sampling strategies, data collection methods, instruments and analytical methods should be stated. Inasmuch as all good science should be reproducible, do not leave out details that may hide deficiencies in methodology and prevent replication of your results. A survey conducted a few years ago on reasons medical journals reject articles suggested that the methods section is where most problems arise.¹

The results section presents the key findings. It should not interpret or discuss those findings. All results should be presented, including those not supporting your conclusion. These assist in interpretation and may lead to improvements in future studies. Results can be presented in the text, or in tables, or in figures. They should not be repeated ►

¹ The main conclusions of this study were that "study-design flaws and inadequate detail in the methods section are often responsible for rejection of a manuscript" and that "most manuscripts could be improved by lengthening the middle two sections (methods and results) and shortening the two on the ends (introduction and discussion)." Daniel Byrne, "Common Reasons for Rejecting Manuscripts at Medical Journals: A Survey of Editors and Peer Reviewers," *Science Editor* (March–April 2000): 39–44.

► in two or three of these. Tables help summarize large data sets (as do statistics), while figures help show trends and underlying patterns. Their purpose is to assist communication. If poorly done, they will add more confusion than understanding.

Within the discussion section, results are interpreted (but not repeated) in the light of relevant and up-to-date literature. It is here that the research question raised in the introduction must be clearly answered. Strengths and weaknesses in the study are stated and acknowledged here, and implications for future work are discussed.

These sections should be well structured, avoid repetition, and lead logically to answering the research question.

Finally come the references. Researchers are apt to include too many references and give insufficient attention to whether these are appropriate or cited correctly. It is common for some articles cited not to say what they are implied to say. It is also not unusual for authors to list references in a style different than that required by the target journal, in a mix of formats, or with spelling and other errors. ■

Our aim is to help you publish

At English Editorial Services, our goal is to see our clients' scientific work published in the best possible international journals. We believe good science deserves to reach a global readership, and our uniquely qualified editorial staff helps scientists over the hurdles they sometimes face in the increasingly competitive area of scientific publishing.



Life Sciences Editor Kevin Roche and Editor-in-Chief Gale A. Kirking have years of experience in scientific research, publishing and manuscripts preparation. The Life Sciences Practice is one of the firm's main specialties. It takes in all manner of biological sciences; medical, veterinary and pharmaceutical research; as well as agriculture and the environment.

A British national, Dr. Roche earned his PhD in Zoology from the Academy of Sciences of the Czech Republic. Before joining English Editorial Services, he had worked both as a pharmaceutical chemist and as an ecologist within both UK and Czech state and nongovernmental organizations. A member of the IUCN Species Survival Commission, he has been invited to referee articles for well-known international journals. Dr. Roche has published many articles of his own and in collaboration with other scientists.

Mr. Kirking earned a Bachelor's of Science in Agricultural Journalism from the College of Agricultural and Life Sciences at the University of Wisconsin – Madison. He worked 10 years as an agricultural journalist, during which time one of his specialties was interpreting and popularizing basic and applied

agricultural research. Since moving to Europe in 1992, he has worked in investment analysis and consulting that has included responsibility for the pharmaceutical and food manufacturing sectors.

Our standard approach is to edit each scientific article to meet the exact standards of the journal that the client is targeting for publication. Thus, we help ensure that format, language style and word limits are all addressed. In addition, we undertake research as necessary to ensure that technical terms, Latin names and references are correct.

Typically, two of our editors will work on a scientific paper. The first undertakes editing (and sometimes translation) at a level that is agreed with the author. The second provides a final edit and proofreading.

We actively communicate with our client during the editing process. If we are not sure we have understood something correctly, or feel we need to alter the wording in any major way, accompanying editorial notes ensure that changes are only made with the author's final approval. ■



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