Top Tips for Writing About Soils for Different Audiences

BRITISH SOCIETY OF SOIL SCIENCE

WRITING FOR SCIENTIFIC JOURNALS

1 Workflow

(a) The Chief Editor will be highly experienced, with an overview of your whole field. They will first screen your manuscript for suitability and whether it is within the scope of the journal.

(b) Handling Editors will be more specialised within your narrower field, and will assess whether your paper is a scientific advance and decide whether it is suitable to send for review.

(c) Reviewers are scientists who will scrutinise your manuscript in much more technical detail. They will submit reports and recommendations for consideration by the Editors, who will then inform the authors of the decision.

2 Review Criteria

(a) The first set of criteria is based on originality, novelty, and soundness. Is there a significant contribution to knowledge? Does it improve our understanding? Is it good science? Are the conclusions justified by the data?

(b) The second set of criteria examine the execution, reporting and presentation. Is the manuscript well-organised? Is the summary, introduction and conclusion informative and clear? Are the figures and tables clear and necessary? Is the statistical treatment correct? Does the English meet a minimum acceptable standard?

When responding to the outcome or suggested revisions, take time to think about it, and remember the reviewers have a strong knowledge of the subject area. If you are convinced there is a misunderstanding, explain why you think this in your response.

3 Journal Articles and Thesis Chapters Are Different

A journal article is aiming at publication, whereas a thesis is for an examination. A paper will not include everything, but will be highly selective and focus on essentials. The central point will be the advance in scientific knowledge, not your development as a scientist. It is not aiming to fit into a broader thesis and must be stand-alone.

4 Become a Reviewer

Once you have some experience of publishing, become a peer reviewer. Beyond service to the scientific community, you will also learn how to improve your articles by better understanding a reviewer's perspective and problems you see in other papers.

5 Journal Choice

You need to understand prospective journals' aims and scope and carefully choose a relevant journal to avoid immediate rejection. Also consider whether you want a discipline-specific journal or a very broad one, e.g. PLOS ONE. Do you want a global, regional, or local scope? Should it be open access? Think about journal ranking and turnaround times. Tools such as the Wiley journal finder are available: https://journalfinder.wiley.com/search?type=match

6 Predatory/Spam journals

Avoid these at all costs! Offers which seem too good to be true, probably are – e.g. promises of acceptance within 48 hours. Look at www.thinkchecksubmit.org for guidance on how to spot them.

7 Current Developments

New developments include free-format submission (focusing on science not formatting), journal cascades (articles may be accepted by a lower-profile journal from same publisher), open and post-publication peer review, publishing preprints before acceptance in fast-moving area, and declarations of each author's contribution.

Biography

Olaf Schmidt is a Professor and Head of Subject of Agri-environmental Sciences at University College Dublin, Ireland. His main teaching and research areas are soil ecology, entomology and agri-environmental management. Since 1994, he has served on editorial boards of various journals (including Applied Soil Ecology, Pedobiologia, Soil Organisms, Soil Research) and he is currently Deputy Editor of the European Journal of Soil Science.

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WRITING FOR OTHER AUDIENCES

There is more writing to be done after your paper is published! The scientific article is not the final aim – you often need to make it accessible to end-users, stakeholders, or the public.

1 Accessible Reporting

Scientific disciplines/sub-disciplines have become so specialised that they can be incomprehensible to both the public and scientists in other disciplines. Plain English reporting, e.g. lay abstracts or author summaries, are needed to communicate science, and may aim at an undergraduate or general public level of understanding.

2 Who might be interested?

There can be a very broad range of audiences, including scientists in other areas, environmental consultants, policy makers, practitioners (such as farmers), activists, NGOs, private citizens (e.g. gardeners), and teachers and children.

3 Differences from a Research Article

Your writing will be more engaging if framed around how the research is important, e.g. aligned to current debates, and its implications for broader society. You may want more emphasis on local context and end-users. Use common English, rather than specialised terminology. Statistics should be reported verbally or in terms of general probabilities and use clear and engaging visuals.

4 Ways to Engage

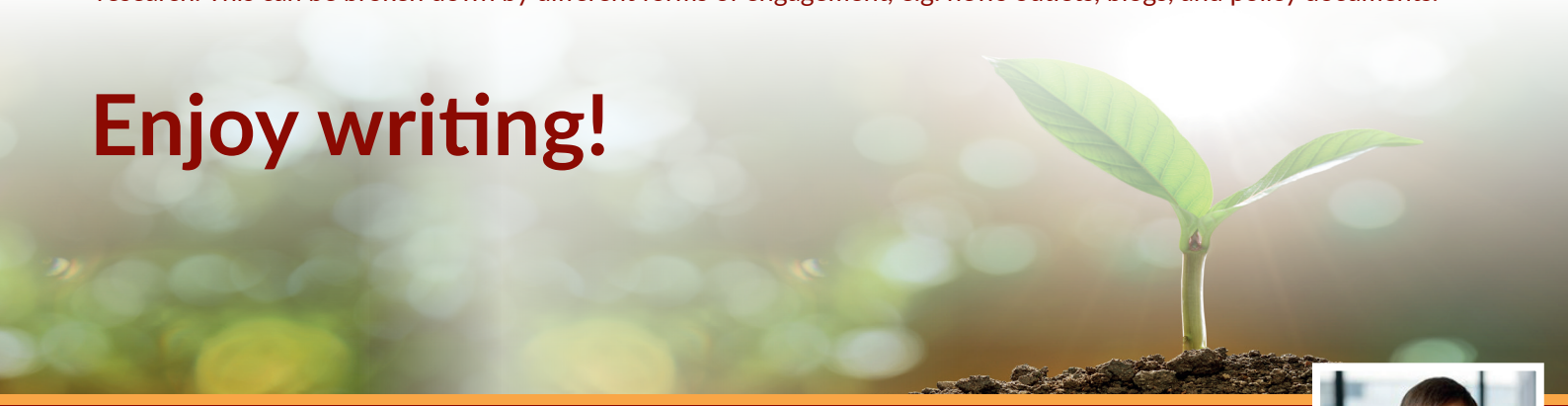
- Blogs can be a short and snappy way to get the messages from your research across to a wider audience.
- You can work with a journalist in your University to make a press release. This needs to be attention-grabbing and can be picked up by high-profile journalistic outlets, both those focused on science and those with much broader readerships.
- Podcasts – you may be able to work with journalists who can create professional podcasts based on an interview

It is generally much better to broadcast to a wider audience after the peer-reviewed research has already been published.

5 Measuring Wider Impact

It can be very fulfilling to see how all the work you put into your research has made a real-world difference. This can also help build your CV and career. Broader impact and attention are now measured through tools such as ResearchGate, Altmetrics, Plum analytics, and Web of Science, which calculate scores for engagement and the attention drawn by your research. This can be broken down by different forms of engagement, e.g. news outlets, blogs, and policy documents.

Enjoy writing!



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