

HOW TO WRITE MANUSCRIPT FOR A JOURNAL

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Introduction

- Although nobody reads more (or should read more?) papers in the literature than students, many appear to find it difficult to write their own manuscripts in the same style that all these scientific papers are written in.
- In part, this can be excused because a published paper is the final result of many months of corrections, review and editing.
- This lecture will help the interested student to learn this.

Reasons for Publishing

Advancing Knowledge

- If you believe you have something worthwhile to say then publication in a peer-reviewed journal is the most far-reaching means of communication.
- Remember research is not research until it is published

Advancing Your Institution

- High-quality publications can advance the prestige, and ultimately the funding of your department or institution.
- Assessments of the collective research output of your institution in terms of the quality and quantity of publications affects the degree of financial and other support for your institution generated by private, corporate and government sources.

Advancing Yourself

- **Achieving Promotion** Publication of material in your professional area increases your promotional opportunities.
- **Enhancing your Profile** Participation in research programs raises your profile within and outside your immediate professional community.
- **Increase your research ability** Writing about your work makes you a better researcher.
- **Gaining National and International Recognition** benefit your career long-term through the establishment of national and international exchanges.

Anatomy of a manuscript

- With the exception of reviews, case reports and hypothesis papers, scientific papers normally use the same format:

i. Title

ii. Abstract

iii. Introduction

iv. Methods

v. Results

vi. Discussions

vii. References

Global Manuscripts Edits and Consistency Checks

- **Uniform style** Make sure that the entire manuscript is in the same font, has the same page margins, has the same line spacing etc
- **Headings** Section headings are the only exception where you are allowed to use different sizes, bold script etc. – but don't exaggerate.
- **Never insert figures or tables into the text** Figures follow the end of the text and tables follow after that as described on the first page of this document
- **Total Manuscript length** Typical manuscripts for scientific papers that are to be published in international journals in the Earth and biological sciences are between 10 and 30 manuscript pages long

Cont'd

- **Reference Style** All citations in the text should be of the same style. All references in the text need to be listed at the back of your manuscript and vice versa
- **Figure citing style** All figure citations in the text should be in the same style (i.e. decide if it is: "Fig. 10" or: "fig. 10" or: "Figure 10").

Mathematics

- **Variables** Mathematical variables should always be in italics, but units not! So: “s” means seconds without explanation, but “s” is a variable that needs to be defined.
- **Use few variables** If you define a variable or other abbreviation that is only used a handful of times in the entire manuscript, you should consider to rather write it out instead.
- **Abbreviations** There are some common abbreviations like T for temperature, P for pressure. Use those if there is a common abbreviation. Don't forget to explain each variable the first time you use it in the text even if it is a common one

Cont'd

- **Choice of processor** If you have a lot of Maths in your manuscript consider using LaTeX instead of WORD as your word processing package. LaTeX mathematics looks much prettier!
- **Numbering of Equations** Equations should be numbered consecutively and used by citing “eq. 7” or: “equation 7” or: “eq. (7)” or something like this in the text.

Content and Style of Manuscripts: Section by Section

Title Page

- The title page of a manuscript needs to be its own.
- Only if the abstract is very short, you could place it together with the title stuff on the title page.
- Usually this is not done. Don't start in the very first line.
- The page numbering should start on this page. Other than that, the title page only contains the title, the authors and the affiliations of the authors
- **Title should be as short as possible:**

Abstract

- The Abstract is actually not unlike the conclusion section of your paper, complemented with a “condensed” introduction section. In fact, it should summarise your entire paper in less than 1 page. Maximum 250 words

First part of abstract

- One or two sentences justifying what you did.
- Don't make this justification too long! Many authors confuse the abstract with an introduction to their work.
- All your findings need to be mentioned in the abstract in an abbreviated form.

Second part of abstract

- The next 2–10 sentences (depending on the allowed length of the abstract) should explain what you did and what the results of your analysis are.

Third part of abstract

- The end of the abstract is a 1–2 sentence conclusion and/or possibly an interpretation for the wider reaching implications.

Keywords

- Usually, journals require 3–5 keywords for indexing purposes. At the end of the abstract is the place to put them, in a single line, starting with the bold font word: “keywords:

Main Body of Manuscript

Introduction Section

- The Introduction should consist of a very general first paragraph putting the case for the importance of the topic and referring to the major findings already published in the area.
- An argument for your having undertaken this particular study should follow and this should include a statement about the hypothesis to be tested or the specific questions that you feel need to be answered, with reference made to any conflicting views or issues in the literature.
- Finally, outline your chosen approach to answering those questions.

Methodology section

- Describe the methodology you have used to achieve your research objectives

Results and Discussion Section

- Exhaustively present your results and discuss the results fully.

References

- Reference lists are formatted according to the journal's author instructions.