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Publishing process : Overview and writing

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Résumé The main objective of this work is to give an overview on the publishing process and to explain its different stages.

Keywords : Peer review, Manuscript, Scientific writing, Scientific journal, Submission.

11.1 Introduction

Publishing process has been known since the 17th century. One of the earliest research journals is the **Philosophical Transactions of the Royal Society**. This process has known a great evolution over years and centuries :

- First, scientific writing follows a rigid structure - a format developed over hundreds of years, which is considered to be the best way for communicating scientific findings to the broader research community.
- Peer review is a central concept for most academic publishing ; other scholars in a field must find a work sufficiently high in quality for it to merit publication. The origins of routine peer review for submissions dates to 1752 when the **Royal Society of London** took over official responsibility for the **Philosophical Transactions**. However there were some earlier examples.
- Not long ago, journals required three to five hard copies of a submission, perhaps along with a disk copy. Now, more and more journals are accepting submissions on-line rather than through the mail.

11.2 Submission process

The submission process can be summarized in the following figure. For more details, see [1, 3, 4, 6].

11.3 Writing a manuscript

11.3.1 Structure

Scientific writing follows a rigid structure - a format developed over hundreds of years, which is considered to be the best way for communicating scientific findings to the broader research community (see [2, 5]). Most disciplines use the format outlined in the grid below.



FIGURE 11.1: Submission process

Though the headings are standard for most journals, there is some variation, so it is essential to read the Guide for Authors of the journal you intend to submit your manuscript to before you start writing.

This format has the advantage that it enables the article to be read on several levels. Some people will just look at the title, others will read only the title and abstract, and those who want a deeper understanding of the research will read most, if not all, of the article.

TABLE 11.1: Structure of a manuscript

Section	Purpose
Title	Reflects content, entices reader
Author	Ensures recognition of the researcher(s)
Abstract	Summarizes the research and the conclusions
Keywords	Ensures the article is correctly identified in abstracting and indexing services
Body text	
Introduction	Puts the work into context
Methods	Explains how the data were collected
Results	Describes what was discovered
Discussion & Conclusions	Explores the implications of the findings
Acknowledgements	Ensures those who helped with the research are recognized
References	Ensures previously published work is recognized
Supplementary material	Provides online additions to the article, such as raw data, video and audio

11.3.2 Presentation

How well a manuscript is written also depends on style, language, your mastery of English, formatting, the illustrations and graphs you choose... in other words, the presentation of your material (see [2, 5]).

Style and language

When writing your manuscript, bear in mind that your chosen journal probably has a specific style. If you can write in that style, your chances of getting accepted will increase. There is also

an underlying style for writing a scientific manuscript. The objective is to report your findings and conclusions clearly, and as concisely as possible. Some pointers :

- Try to avoid embellishment with unnecessary words or phrases - keep it simple.
- Make sure transitions are succinct, with one section naturally flowing into another. Although advance organizers can be helpful, unneeded repetition should be avoided.
- Use the active voice wherever possible.
- Tenses are important : For known facts and hypotheses, use the present tense. When you refer to experiments you have conducted, use the past tense.
- Take care about punctuation, (page, formula, table and figure)-numbering, ...

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