

SCIENTIFIC WRITING OF PAPER

مدرس : دکتړ سبځان غفوریان

PRESENTATION

Elsevier Presentation

Springer

Nature

Sciences

Lancet



OVERVIEW

Task of writing a research paper can be daunting

Even with groundbreaking research, unless the paper is correctly written:

- at best, publication will be delayed
- at worse, never published

Presentation will provide an overview of 'how to write a well-structured research paper for publication'



AUTHOR PUBLISHING PRIORITIES

Quality and speed

- Refereeing speed
- Refereeing standard
- Journal reputation

Editor/board, physical quality and publication services



AUTHOR VERSUS READER BEHAVIOUR

Author behaviour

- Want to publish more
- Peer review essential
- Other journal functions crucial
- Wider dissemination

Reader behaviour

- Want integrated system
- Browsing is crucial
- Quality information important
- Want to read less



READER'S PRIORITIES

Authoritative quality articles

Ease of access

Rapid delivery

Convenient format

Linking of information - clustering

Low or no cost

Up-to-date information



DIFFERENCES: AUTHORS AND READERS

Authors are journal focused

Readers are article focused

Publish more/read less dichotomy



PRIORITIES FOR READERS IN LOW-INCOME COUNTRIES (DISCUSSION)

Rank on a Scale of 5:1 -

5 (very useful), 4 (somewhat useful), 3 (average), 2
(somewhat not useful), 1 (not useful)

- Authoritative quality articles
- Ease of access
- Rapid delivery
- Convenient format
- Linking of information - clustering
- Low or no cost
- Up-to-date information
- Other

KEY ELEMENTS OF PUBLISHING

Ethical Issues

Style and language

Structure of paper

Components of paper

Article submission/journal selection

Publisher's process/peer review



STYLE AND LANGUAGE

**Refer to the journal's author guide for notes on style
(see Publishing Skills Web-Bibliography for
examples)**

- Some authors write their paper with a specific journal in mind
- Others write the paper and then adapt it to fit the style of a journal they subsequently choose

**Objective is to report your findings and conclusions
clearly and concisely as possible**



STYLE AND LANGUAGE

If English is not your first language, find a native English speaker (if possible) to review the content and language of the paper before submitting it

Regardless of primary language, find a colleague/editor to review the content and language of the paper



STRUCTURE OF A PAPER

Scientific writing follows a rigid structure – a format developed over hundreds of years

Consequently, a paper can be read at several levels:

- Some people just will refer to the title
- Others may read only the title and abstract
- Others will read the paper for a deeper understanding



COMPONENTS OF A PAPER

Section	Purpose
Title	Clearly describes contents
Authors	Ensures recognition for the writer(s)
Abstract	Describes what was done
Key Words (some journals)	Ensures the article is correctly identified in abstracting and indexing services
Introduction	Explains the problem
Methods	Explains how the data were collected
Results	Describes what was discovered
Discussion	Discusses the implications of the findings
Acknowledgements	Ensures those who helped in the research are recognised
References	Ensures previously published work is recognised
Appendices (some journals)	Provides supplemental data for the expert reader

AUTHORS LISTING

ONLY include those who have made an intellectual contribution to the research

OR those who will publicly defend the data and conclusions, and who have approved the final version

Order of the names of the authors can vary from discipline to discipline

In some fields, the corresponding author's name appears first

TITLE

Describes the paper's content clearly



ABSTRACT

Briefly summarize - the problem, the method, the results, and the conclusions so that

- The reader can decide whether or not to read the whole article

Together, the title and the abstract should stand on their own

Many authors write the abstract last so that it accurately reflects the content of the paper



INTRODUCTION

Clearly state the:

- Problem being investigated
- Background that explains the problem
- Reasons for conducting the research

Summarize relevant research to provide context

State how your work differs from published work

Identify the questions you are answering

Explain what other findings, if any, you are challenging or extending

Briefly describe the experiment, hypothesis(es), research question(s); general experimental design or method

METHODS

Provide the reader enough details so they can understand and replicate your research

Explain how you studied the problem, identify the procedures you followed, and order these chronologically where possible

Explain new methodology in detail; otherwise name the method and cite the previously published work

Include the frequency of observations, what types of data were recorded, etc.

Be precise in describing measurements and include errors of measurement or research design limits



RESULTS

Objectively present your findings, and explain what was found

Show that your new results are contributing to the body of scientific knowledge

Follow a logical sequence based on the tables and figures presenting the findings to answer the question or hypothesis

Figures should have a brief description (a legend), providing the reader sufficient information to know how the data were produced



DISCUSSION/CONCLUSION

Describe what your results mean in context of what was already known about the subject

Indicate how the results relate to expectations and to the literature previously cited

Explain how the research has moved the body of scientific knowledge forward

Do not extend your conclusions beyond what is directly supported by your results - avoid undue speculation

Outline the next steps for further study

COVER LETTER?

How editor motivated to publish your paper?

