How to write good research manuscript – a perspective from a journal editor.

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Steps for original research paper

- have a clear research question
- seek statistical advice
- use the right study design
- act ethically
- keep an open mind and minimize bias
- agree who will be principal investigator/author
- agree who will be authors and contributors
- agree to publish even negative results
Which articles would you like to read?

- Clear message
- Original
- Topical
- Reliable
- Of interest and relevance
- Well written
- Short
"The perfect paper" and Review Criteria

- Original - Innovative - Novel
- High scientific reliability and Valid
- Clinical impact
- Applicable to clinical practice

- Generalizable
- Implications for clinical practice and future research
- Well written
- Brief
The basic element of a paper

- A paragraph
  - logically organized,
  - with an internal continuity,
  - telling a story
A topic sentence - stating the message

Organize supporting sentences so that they say something about the topic

End with a conclusion leading to the next paragraph
CRITERIA TO CONSIDER FOR SELECTING THE JOURNAL: JOURNAL INFORMATION/CONTENT

- JOURNALS USED BY YOURSELF/MENTORS/ ADVISOR/ COLLEAGUES
- TYPES OF ARTICLES PUBLISHED (ORIGINAL RESEARCH, REVIEW, CASE STUDY)
- LENGTH OF MANUSCRIPT ACCEPTED
- REQUIREMENT FOR SUPPLEMENTAL DATA
CRITERIA TO CONSIDER FOR SELECTING THE JOURNAL:

REPUTATION OF THE JOURNAL

- YEARS IN PUBLICATION
- COST AND AVAILABILITY (JOURNAL COST EFFEC TIVENESS)
- OPEN ACCESS
- PEER REVIEW STATUS
- IMPACT FACTOR
CRITERIA TO CONSIDER FOR SELECTING THE JOURNAL:

REPUTATION OF THE JOURNAL

• REPUTATION OF THE JOURNAL (PUBLISHER, EDITOR)

• ACCEPTANCE/REJECTION RATES (JOURNALS WITH LOWER ACCEPTANCE RATES ARE GENERALLY MORE PRESTIGIOUS)

• QUALITY OF ACCEPTED ARTICLES AND AUTHORS

• AUDIENCE OF JOURNAL (READERSHIP)

• AUDIENCE SIZE (INDEXING & CIRCULATION)
CRITERIA TO CONSIDER FOR SELECTING THE JOURNAL:

REVIEW PROCESS

- TIME TO PUBLICATION (SPEED OF PEER REVIEW, PRE-PUB ONLINE)
- PUBLICATION COSTS & AUTHOR FEES: (SHOULD FALL IN THE INDUSTRY STANDARD $1500 - $5000 RANGE)
IMPACT FACTOR

The Journal Impact Factor reflects the average number of citations to recent articles published in that journal. It’s one measure of the *relative importance* of a journal within its field. High impact factor ~ more important
IMPACT FACTOR

$A = \text{the number of times articles published in 2018 and 2019 were cited by indexed journals during 2020.}$

$B = \text{the total number of "citable items" published in 2018 and 2019.}$

$\frac{A}{B} = 2020 \text{ impact factor}$
Impact Factor

- Seeks to measure the influence a journal has in its field.
- Uses "bibliometric analysis" of journals indexed in the ISI database. More specifically, it measures how often scholars and researchers have cited articles in a particular journal in the most recent two years.
- Simply put, the higher the number, the better the journal's impact factor.
- The better the journal's impact factor, the more influence it is supposed to have in its field.
Authorship

Openly discuss from the start who is to be an author

• Keep track of who did what
• Who gets to write the paper?
• Shared first authorship? Senior authorship?
• Authorship versus acknowledgment
• What do you get to take with you when you leave a lab?

• Everybody must agree
Activated macrophages are essential in a murine model for T cell–mediated chronic psoriasis versus Up-regulation of IL-7, stromal-derived factor-1α, thymus-expressed chemokine, and secondary lymphoid tissue chemokine gene expression in the stromal cells in response to depletion: implication for thymus “reconstitution”
What is a good title?

- A good title should be both informative and exciting.
- Be careful with statements and "conclusions" in titles.
- A question in the title must be answered in the paper.
Manuscript preparation

Cover letter

• 4-5 paragraphs MAXIMUM Any more and we question why you are arguing so vehemently Any less and you’re being lazy

Should introduce the study and the authors
• Declare conflicts of interest
• Indicate that the findings are as yet unpublished
• Suggest referees and list exclusions
• Explain why your paper is important and novel

PROOFREAD IT BEFORE SUBMITTING
• -correct journal, date, grammar
**IMRAD - structure of a manuscript**

- **Introduction**
  - Why?
- **Methods**
  - How?
- **Results**
  - What did you find?
- **Discussion**
  - What does it mean?
Manuscript Structure

- Abstract
- Introduction
- Body of Article
- Results
- Discussion and Conclusions
- Acknowledgements
- References Figures and Tables
Abstract

- Summary of Manuscript (200-300 Words)
- Problem investigated
- Purpose of Research
  - Methods
  - Results
- Conclusion
Abstract

- **Common Mistakes**
  - Too much background or methods information
  - Figures or images
  - References to other literature, figures or images
Introduction

- Broad information on topic
  - Previous research
- Narrower background information
  - Need for study
  - Focus of paper
- Hypothesis
- Summary of problem (selling point)
- Overall 300-500 words
Introduction

Common Mistakes

- Too much or not enough information
- Unclear purpose
- Lists
- Confusing structure
- First-Person anecdotes
Introduction

- What have you done?

- Two aims:
  - Catch the interest of the reader
  - Helping the reader to understand the rest of the paper

- Three parts: Known, Unknown, Problem/Question
The introduction:

- Funnel from what is known to the question
- Tell a story
- Keep the number of references to a minimum
- State the question
- Keep it short!

(Mimi Zeiger, McGraw-Hill, 1991)
Writing an introduction to the introduction

- Scenario
- Event
- A statistic
- Scope
- Everyday occurrence
- Statement of fact

- Definition
- Question
- Lack of research
- Overview
- Previous study
- Combinations

(J Techn Writing Comm 2009;39:321-9.)
Methods and Materials

- Provides instruction on exactly how to repeat experiment

- Subjects
- Sample preparation techniques
- Sample origins
- Field site description
- Data collection protocol
- Data analysis techniques
- Any computer programs used
- Description of equipment and its use
Methods and Materials

- Common Mistakes
  - Too little information
  - Information repeated from Introduction
  - Verbosity
  - Results/ sources of error reported
Material and methods

- Study design
- How, when and where was the study performed?
- Data analysis plan
- Aim for six paragraphs
Results

- Six paragraphs describing what you found
- Systematic presentation of your findings
- Logical order
  - From general to detailed information
  - Chronological
Results

- Objective presentation of results
- Summary of data
- NOT a Discussion!
Results

- Common mistakes
  - Raw data
  - Redundancy
  - Discussion and interpretation of data
  - No figures or tables
  - Methods/materials reported
  - Repeat tables and figures verbatim in text
Discussion

- What it all means in 6-7 paragraphs
- Structure
  - Summarize main findings
  - Limits/strengths of your study
  - Interpretation (comparison with others)
  - Importance
- End with a clear message
Discussion

Interpret results

- Did the study confirm/deny the hypothesis?
- If not, did the results provide an alternative hypothesis? What interpretation can be made?
- Do results agree with other research?
- Sources of error/anomalous data?
- Implications of study for field
Discussion

Common Mistakes

- Broad statements
- Incorrectly discussing inconclusive results
- Ambiguous data sources
- Missing information
Figures and Tables

> **Tables**
> Presents lists of numbers/text in columns

> **Figures**
> Visual representation of results or illustration of concepts/methods (graphs, images, diagrams, etc.)

> **Captions**
> Must be stand-alone
Reference list

- Only published, openly available sources should be included.
- References should be numbered consecutively as they appear in the text.
- The reference list should be accordingly numbered and systematic:
  - Author(s) (according to journals)
  - Title.
  - Publication.
    - Article: Journal (abbr), year;volume:page-page.
    - Book: Place of publishing: Publisher, Year.
  - DOI (digital object identifier)
References

- Check specific referencing style of journal

- Should reference:
  - Peer-reviewed journal articles, abstracts, books

- Should not reference:
  - Non-peer-reviewed works, textbooks, personal communications
References

Common Mistakes

- Format
- Redundant references
- Type of Reference
How to choose referees

• Option to suggest as well as exclude potential referees

• Most journals welcome suggestions, yet not all authors take advantage

• You may be equally or better placed than Editors to know who is best qualified to evaluate and recognize the impact of your work

• Provide contact information for 2-5 potential referees
How to choose referees

**WHO TO SUGGEST**

Established investigators with broad knowledge of field

- Technical expertise to evaluate your experimental approach

**Don’t suggest:**

- Researchers in the same Department, Institution or Company
- Your recent co-authors or collaborators
- Someone you acknowledge in the manuscript-provided reagents or a critique of the manuscript
How to choose referees

WHO TO EXCLUDE

- Valid reasons for keeping sensitive results out of competitors' hands
- Be aware of Conflicts of Interest, financial or otherwise
- Know your assassins – individuals with a known bias

Don’t exclude:

- Large numbers of excluded people
Decisions

REMEMBER:

• Don’t inquire about the status daily
• Very few papers are accepted upon initial submission

• Don’t be discouraged - all of us receive rejection letters

• Don’t take a rejection letter personally
Decisions

If you choose to SUBMIT ELSEWHERE:

• Did you send it to the wrong journal? Carefully consider your 2nd choice. **Remember to change your cover letter.**

• Recognize and fix major flaws before submitting to another journal

• Make a modest effort to incorporate Referee suggestions

• **WHY?** The same Referee may see it again

• Peer review should help you improve the paper
Decisions

If you are encouraged to REVISE and RESUBMIT:

- Endeavor to do so as quickly, BUT COMPLETELY, as possible.

- Remember that this may be your last chance to resubmit.
- Address the major issues with substantial revisions
  - Do all of the requested new experiments and analyses
  - Revise the text and figures as necessary
Decisions

When you REVISE and RESUBMIT:

• Always be polite and respectful. In your letter to be transmitted to the Referees, first thank him or her for their comments.

• Write a point-by-point letter clearly outlining how you have addressed *every* point raised by the Editors and Referees in your revised manuscript.

• If you cannot accommodate the demands, thank the Referee for the suggestion, but offer an explanation for why they are not possible at this time or beyond the scope of the current paper.
Conflicts and Competing interests

- A person has a competing interest when there is an attribute that is invisible to the reader or editor that may affect his or her judgment [such as payments, gifts, family employment, etc.]

- Always declare a competing interest, particularly one that would embarrass you if it came out afterwards.
Misconduct

- Fabrication: making up data or results and recording or reporting them

- Falsification: manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record

- Plagiarism: the appropriation of another person's ideas, processes, results, or words without giving appropriate credit
Keep the Editor Happy

- make sure the message is clear in the paper and abstract
- Provide additional materials and information such as CONSORT checklist, details of any closely related papers and any previous peer review reports
- communicate clearly and promptly!!!!!
How to write good research manuscript – a perspective from a journal editor-in-chief”.

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Assignment

- Propose the title and authors of a manuscript from your research project.
- List three potential journals for submission.
- Send to lackland@musc.edu