

Journals and Their Expectations

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Plan

- Background
- How to choose a journal
- What journal(editor)s want
- Features of a high-quality scientific paper
- Peer-review process
- Take home messages

Start

Look up from our own window

What do journals expect us to do? = What do we need to do?



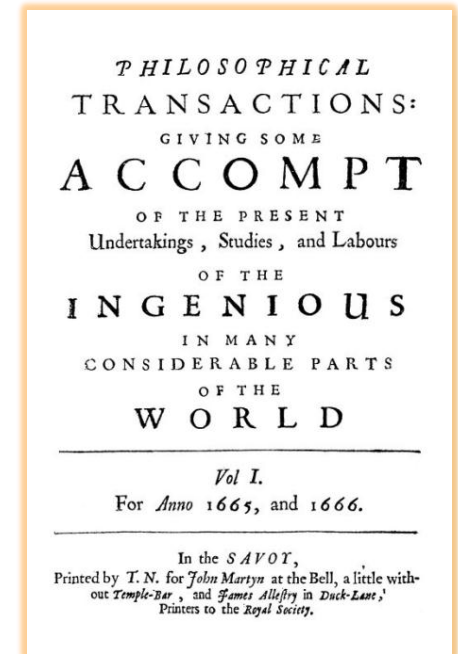
Introduction & Background

Introduction & Background

- ~ 30,000 active scholarly peer-reviewed journals
- Collectively ~2 million articles per year.

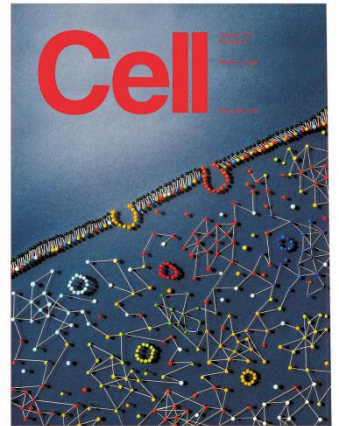
Introduction & Background

- The Philosophical Transactions
 - The oldest scientific journal
 - Birth Year: 1665



- The scientific article has become the only way science is systematically represented.

Introduction & Background



At first,

- It had not been important where you published.
- ***Ben Lewin*** (the editor of *Cell*) changed everything in 1974.
- Lewin
 - prized long, rigorous papers that answered big questions.
 - rejected far more papers than he published.
- Where you published became immensely important.
 - Most prestigious scientists have sent their papers to *Cell*.
- Other editors took a similar approach to replicate *Cell*'s success.

Introduction & Background



- The publishers adopted a new metric ‘*impact factor*’.
- The new-look journals shot to the top of new rankings.
- Scientists who published in “*high-impact*” journals were rewarded with jobs and funding.

Introduction & Background

In general,

- Journals prize new and spectacular results.
- Wasted time on unpublished submissions to scientific journals:
~15 million person-hours a year.

Introduction & Background

- “Publishing is the expression of our work. A good idea, a conversation or correspondence, even from the most brilliant person in the world ... doesn’t count for anything unless you have it published.”

Neal Young of the NIH

Introduction & Background

- Publishing your results is necessary to validate them and share your work with the scientific community.
- The academic journal is still the most robust method of publishing.
 - Despite numerous innovations in communication (blogs, monographs, etc.).

! ? !

- Which journal should you publish in?
- Do you need to bother with a cover letter?
- How do you respond to reviewers?

...



An Important Rule to Remember

! Select an appropriate journal !

Submission to an unsuitable journal will result in instant rejection
by the editor without peer review

Factors to consider when choosing a journal

Factors to consider when choosing a journal

- Instructions for authors
 - Visit the website of the ~~candidate~~ journal
 - Read *guidelines for authors* carefully
- The journal's target audience
 - Is the study of interest to the readership of the journal?

Factors to consider when choosing a journal

- The topics the journal publishes
 - **The Aims and Scope** of the journal indicate the topic areas.
 - Have a look at *the articles published by the journal already*.
- The types of articles the journal publishes
 - e.g. whether the journal publishes case reports or review articles

Factors to consider when choosing a journal

- Length restrictions
 - The number of words/tables/figures in the articles may be restricted.
- Reputation of the journal
 - **Impact Factor** remains the default method for determining the quality and reputation of a journal.

Factors to consider when choosing a journal

Impact Factor

- Everyone wants to publish in a high-impact journal.
- High-impact journals want to publish *novel findings that have a major impact on the field.*

= Be honest about the quality of your own work =

Place your work on the **novelty, impact, priority scales**

Objectively consider how significant your results are

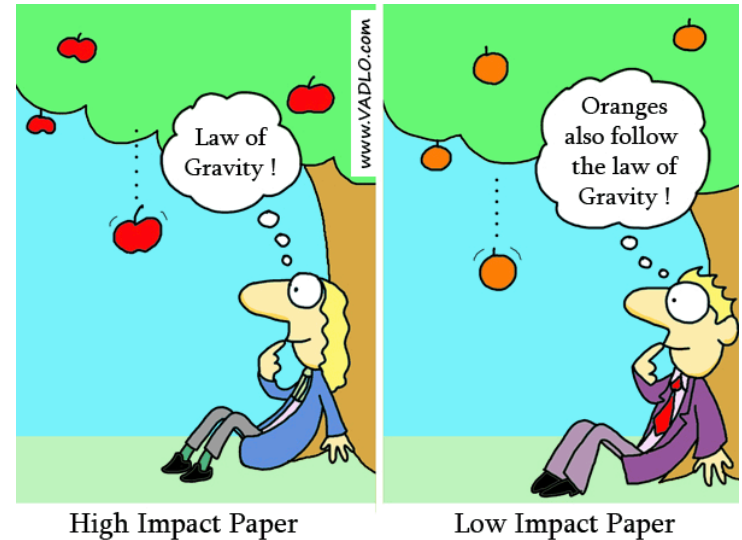
What do journal(editor)s want?

What do journal(editor)s want?

- Journal editors
 - evaluate all manuscripts that are submitted to their journal.
 - select those which they consider to be suitable for the journal
 - send them for peer review.
 - consider peer reviewers' advice to make a final decision.

What do journal(editor)s want?

- They
 - are busy
 - usually have to make an initial decision on the suitability of a paper quickly.



- They usually look at the
cover letter – abstract - conclusion - references
- Decide
whether the submission is in scope for the journal and of sufficient impact

What do journal(editor)s want?

- They aim to publish
 - **good quality science**
 - enduring conclusions that will stand careful scrutiny&validation.
 - an impact on the scientific and medical community.
- Key elements: Novelty and the potential for stimulating further discussion and research.

What do journal(editor)s want?

High-quality research must be performed to produce a high-quality scientific paper

Do good research

- When setting out to research a particular topic
 - read the literature
 - &
 - *master what has already been completed previously*

Don't try to reinvent the wheel!

What do journal(editor)s want?

Formulate an important research question

- The research question has to stem from
a clinically important topic that has a significant disease burden

Choose a research active area

What do journal(editor)s want?

Study design

- The most important aspect of any research study is its *design*.
- All editors and reviewers look for the quality of the study design as *the first parameter*.

How to write a high-quality scientific paper

How to write a high-quality scientific paper

General Considerations

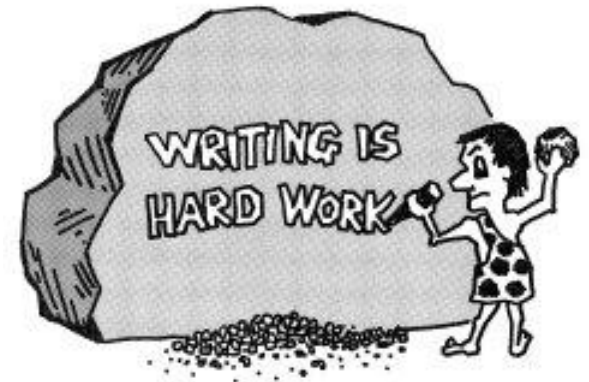


- The simple secret to successful writing (scientific/ otherwise)
You are telling a story; it must make sense!
- It must have
 - a beginning, a middle, and an end with a “take home” message.

How to write a high-quality scientific paper

General Considerations

- Most journals demand a rigid structure and ask authors to adhere to certain conventions.
- The most common convention:
 - *Introduction, Methods, Results, Discussion, Acknowledgements, References, Tables, and Figures*



How to write a high-quality scientific paper

General Considerations

Accurate and clear expression of your thoughts and research information should be the primary goal of scientific writing

&

Good scientific writing demands clarity, brevity, and logic

How to write a high-quality scientific paper

General Considerations

Write with a **measure of formality**, using **scientific language**



How to write a high-quality scientific paper

General Considerations



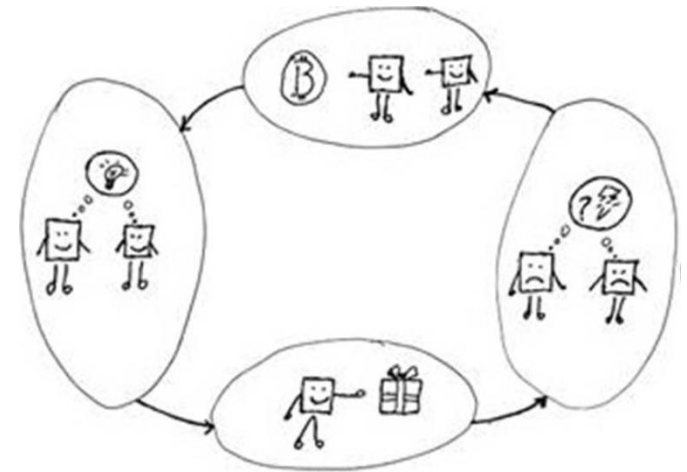
Avoid first person language

Write using third person language

How to write a high-quality scientific paper

General Considerations

Tables, Figures and graphics



- Consider the use of graphic/figure representation of data and important procedures.
- Tables
 - should be able to stand alone
 - be completely understandable at a quick glance.

How to write a high-quality scientific paper

! A general rule of thumb !

Avoid plagiarism and
inadvertent lack of citations



How to write a high-quality scientific paper

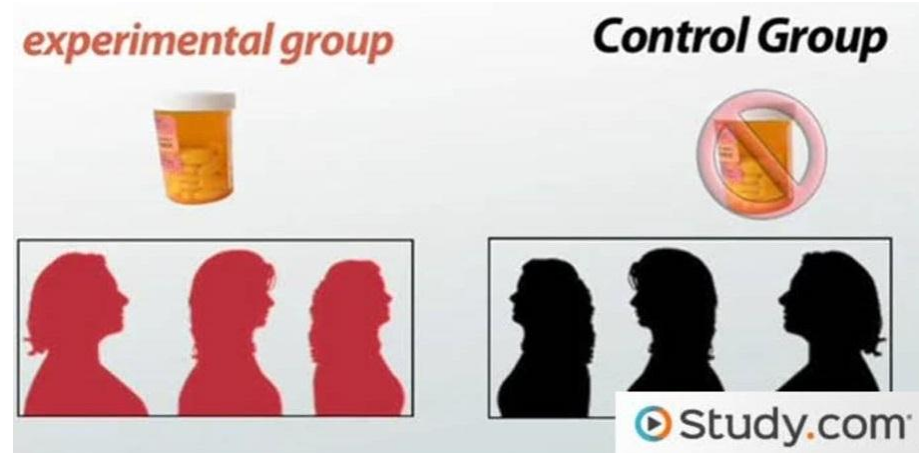
Introduction and Review of Literature

- Provide information regarding the necessity of the presented project by using past studies.
- A competent introduction should include:
 - Significance of the topic
 - The information gap in the available literature
 - A literature review in support of the key questions
 - Subsequently developed purposes/objectives and hypotheses.

How to write a high-quality scientific paper

Methods

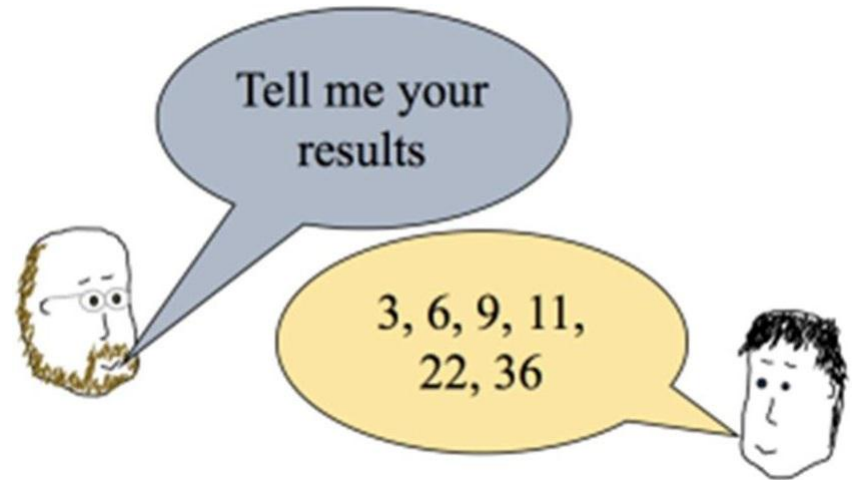
- Clearly describe the specific design of the study and the procedures performed.



- Sufficient detail should be provided so that an appropriately trained person would be able to replicate your experiments

How to write a high-quality scientific paper

Results



Report your results neutrally, just as you “found them”

How to write a high-quality scientific paper

Discussion

- All results must first be described/presented and then discussed.
- Carefully discuss:
 - Where your data is similar to/different from other published evidence
&
– ***Why this might be so!!!***
 - What was different in methods or analysis?
&
• What was similar?

How to write a high-quality scientific paper

Conclusions

- Finish with a concise, 3-5 sentence conclusion paragraph.
 - It is comprised of some final, summative statements
 - Reflect the flow and outcomes of the entire paper
 - A statement about potential changes in clinical practice or future research opportunities can be provided here.

Not just a repetition of the results

How to write a high-quality scientific paper

! Remember !

Once you have written your manuscript get a colleague to read it and provide feedback on how the manuscript flows.

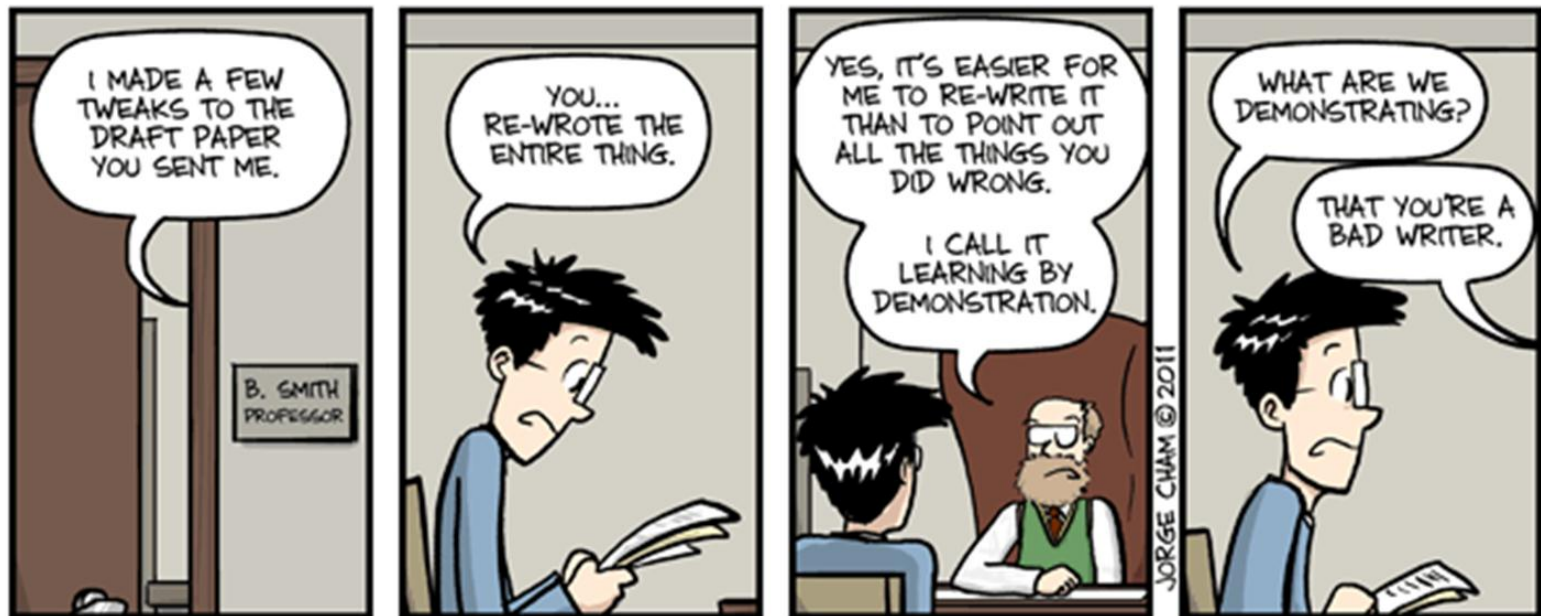


If necessary rewrite it so it reads well and grabs the attention of the editor.

How to write a high-quality scientific paper

For novice writers,

seek a reading mentor that will help you pre-read your submission



How to write a high-quality scientific paper

Before submitting your manuscript,

- Evaluate it critically—could anything be done better?
- Be sure
 - The manuscript follows the *Instructions for Authors*
 - All files are in the correct format&of the appropriate resolution/size
 - The spelling & grammar are correct

How to write a high-quality scientific paper

Before submitting your manuscript,

- Serious consideration has to be given to:
 - The title of the manuscript
 - The abstract
 - The cover letter

How to write a high-quality scientific paper

Title

The first window for readers to look at your work.



- Select a title that
 - catches their attention & makes them want to read further
 - accurately describes the contents of your manuscript

How to write a high-quality scientific paper

Abstract

- Many readers (and editors!) will only read the abstract and determine if the remainder is worth reading.



It has to be able to stand alone

How to write a high-quality scientific paper

Abstract

- What questions should an abstract answer?
 - What was done?
 - Why was it done?
 - What was found?
 - Why are these findings useful and important?
 - What is the “take home” message?

How to write a high-quality scientific paper

Cover letters

Your aim is to “*sell*” your paper to the journal.

Take care to attract the editor's attention.



- As well as introducing your work to the editor, explain **why the manuscript will be of interest to the journal's readers**
&
why the editor would want to publish it

How to write a high-quality scientific paper

Cover letters

All cover letters should contain

- We confirm this manuscript has not been published elsewhere and is not under consideration by another journal.
- All authors have approved the manuscript and agree with its submission to [blah blah journal].

Peer-review process

Peer-review process

- Keep in mind:

Revisions are part of the publication process

&

Help raise the quality of your manuscript

- Peer reviewers are experts who *volunteer* their time to help improve the journal manuscripts.

They offer authors *free advice*

Peer-review process

Another important purpose of peer review is to make sure
the papers published are of the right quality for the journal's aims



Peer-review process

You receive a MAJOR REVISE DECISION—what next?

It means

- Your manuscript has a chance

BUT

- It has still not yet been accepted for publication.

- You should try to provide answers or data for all comments.
- If you disagree with the reviewers' point of view,
state your opinion clearly but politely

Peer-review process

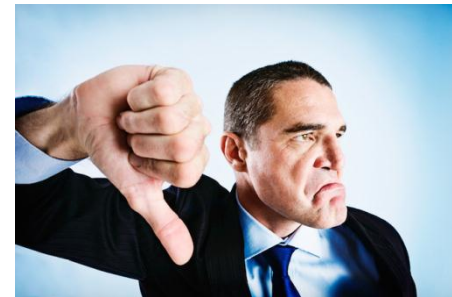
Reject Decision

Reasons for rejection

- Your manuscript can be rejected for many reasons

BUT

- These can generally be divided into
 - **Technical** reasons
 - **Editorial** reasons



Peer-review process

Reasons for rejection

- Technical reasons include:
 - *Incomplete data* such as too small a sample size or missing or poor controls
 - *Poor analysis* e.g. using inappropriate statistical tests
 - *Inappropriate methodology* for answering your hypothesis
 - *Weak research motive* where your hypothesis is not clear or scientifically valid, or your data does not answer the question posed
 - *Inaccurate conclusions* on assumptions that are not supported by your data

Peer-review process

Reasons for rejection

- Editorial reasons for rejection
 - *Out of scope* for the journal
 - Not enough of an *advance* or of enough *impact* for the journal
 - *Research ethics ignored*
 - *Not following journal formatting requirements*
 - *Lack of the necessary detail on the analysis and experiments*
 - *Lack of up-to-date references* or references containing a *high proportion of self-citations*
 - Has *poor language quality* such that it cannot be understood by readers
 - *Difficult to follow logic* or *poorly presented data*
 - *Violation of publication ethics*



Peer-review process

What do you do if your manuscript is REJECTED?

Look at the comments carefully and fairly.

- If you think
 - The reviewer made a mistake on an important point
 - &
 - You can prove this

You could consider a rebuttal to the editor.

- Rebuttals are rarely successful.

- Best action

Revise and send the improved manuscript to a new journal

Summary

- Choose an important question
- Design a sound study with statistical power
- Perform the work with impeccable integrity & attention to detail
- Write an excellent manuscript
- Submit it to the right journal
- Respond to reviewer comments fully



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