

How to Write a Paper

Title, Abstract, and References

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How to Write a Paper: The title

The title is the most read
part of any paper

How to Write a Paper:

The title

- Try to be concise
 - easier to read and understand
- But...be sure to include key design information
 - facilitates sensitive and specific electronic retrieval of the article

How to Write a Paper: What goes in the title?

- The **dependent variable** (outcome)
- The **independent variable** (exposure)
- The **group studied**
 - *“Lung function and occupational exposure in Chilean copper miners”*
 - *“Growth velocity and Inhaled corticosteroid use in adolescents”*

How to Write a Paper: What goes in the title?

- The **dependent variable** (outcome)
- The **independent variable** (exposure)
- The **group studied**
- The **condition** studied
 - *“Growth velocity and inhaled corticosteroid use in adolescents with moderate persistent asthma”*
 - *“Eclampsia and vitamin E in primiparous Ecuadorian women”*

How to Write a Paper: What goes in the title?

- The **dependent variable** (outcome)
- The **independent variable** (exposure)
- The **group studied**
- The **condition** studied
- The **study design**
 - *“Eclampsia and vitamin E in primiparous Ecuadorian women: a case-control study”*

How to Write a Paper: What goes in the title?

- The title can be switched around for different journals:
 - For an obstetric journal you might write:
 - *“Eclampsia and vitamin E in first pregnancies: a randomised controlled trial”*
 - For a nutrition journal you might write:
 - *“Vitamin E and eclampsia in first pregnancies: a randomised controlled trial”*

How to Write a Paper:

Declarative titles

- A declarative title states your finding as a statement:
 - *“Bed nets prevent malaria in children living in the Ecuadorian Amazon”*
- Opinions vary among journals and reviewers. Some have very definite biases.
 - e.g., let the readers draw their own conclusion
- *HOWEVER: some journals like them (e.g. Journal of Clinical Epidemiology)*

How to Write a Paper:

Also on the title page...

- **Authors' names and institutional affiliations.**
- **Disclaimers**, if any.
- Contact information for **corresponding author**.
- **Source(s) of support** in the form of grants, equipment, drugs, or all of these.
- A **running head** (no more than 40 characters).
- **Word count**
- **The number of figures and tables.**

Exact specifications vary from journal to journal

- Read the author instructions closely *and follow them!*

How to Write a Paper:

The abstract

The abstract is the second most read part of any paper

How to Write a Paper:

The abstract

- Because abstracts are the only substantive portion of the article indexed in many electronic databases, make sure all the key words are mentioned in the abstract.
- As this is the only part of your paper that many people will read, check that it accurately reflects the content of the article.

How to Write a Paper:

The abstract

- Requirements for length and format vary
 - Structured vs. unstructured
 - Required sections and labels
 - Length
 - Key Words
- Read the author instructions closely and follow them

How to Write a Paper:

Basic structure of any abstract

- Rationale for the study (brief)
- Purpose of study (“The Question”)
- Basic procedures
 - selection of study subjects
 - study design
 - key measurements
 - analytical methods
- Main findings
 - effect sizes and statistical significance
- Principal conclusion(s)

How to Write a Paper:

Essential elements of RCT abstract

- Articles on clinical trials should contain abstracts that include the items that the CONSORT group has identified as essential (<http://www.consort-statement.org/?=1190>)

How to Write a Paper:

Essential elements of RCT abstract

- Trial design - Description of the trial design (e.g., parallel, cluster, non-inferiority)
- Should be included in the title

How to Write a Paper:

Essential elements of RCT abstract

Methods

- **Participants** - Eligibility criteria for participants and the settings where the data were collected
- **Interventions** - Interventions intended for each group
- **Objective** - Specific objective or hypothesis
- **Outcome** - Clearly defined primary outcome
- **Randomization** - How participants were allocated to interventions
- **Blinding** (masking) - Whether or not participants, care givers, and those assessing the outcomes were blinded to group assignment

How to Write a Paper:

Essential elements of RCT abstract

Results

- **Numbers randomized** - Number of participants randomised to each group
- **Numbers analysed** - Participants analysed in each group
- **Outcome** - For the primary outcome, a result for each group and the estimated effect size and its precision
- **Harms** - Important adverse events or side-effects

Conclusions - general interpretation of the results

Trial Registration (e.g., number and name in *clinicaltrials.gov*)

Source of Funding

How to Write a Paper: Acknowledgments and COI statement

- Potential conflicts of interest need to be listed for each author.
 - May be noted in paper or in separate statements required by the journal (check author instructions!)
- Acknowledgements are not required, but if you do include them get permission to list individuals by name. Not everyone who read your paper will want to be acknowledged.

How to Write a Paper: References

- Peter Burney suggests you avoid references to review articles
 - do not always reflect original work accurately.
 - provide direct references to original research sources whenever possible.
- I like to cite well-done reviews, however, so this isn't an absolute rule
- Small numbers of references to key original papers often serve as well as more exhaustive lists unless you are doing a meta analysis

How to Write a Paper: References

- Avoid abstracts as references.
- References to papers accepted but not yet published should be designated as “in press”
 - authors should obtain written permission to cite such papers as well as verification that they have been accepted for publication
 - probably need to include a copy with the submission
- Information from manuscripts submitted but not accepted should be cited in the text as “unpublished observations” with written permission from the source
 - Same caveats as above

How to Write a Paper: References

- Avoid citing a “personal communication” unless it provides essential information not available from a public source, in which case the name of the person and date of communication should be cited in parentheses in the text.
 - For scientific articles, obtain written permission and confirmation of accuracy from the source of a personal communication.

How to Write a Paper: References

- Verify references against the original documents.
- Do not cite retracted articles except in the context of referring to the retraction.
- PubMed is the authoritative source for information about retractions.
- Find retracted articles in MEDLINE by using the search term “Retracted publication [pt]” in PubMed, where [pt] stands for publication type.