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# How to write articles: research outcome into literature

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True ease in writing comes from art, not chance,  
As those who move easiest have learnt to dance.

*Alexander Pope (1688-1744)*



# Reasons to publish

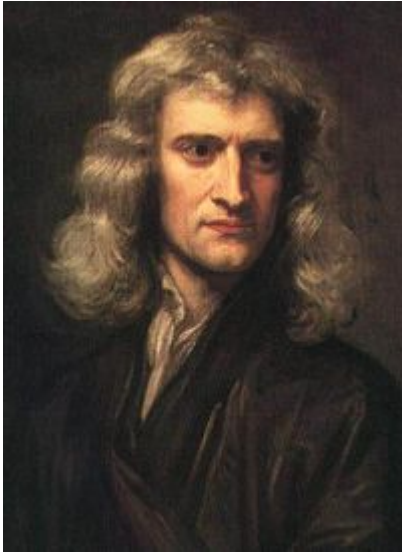
- Unethical not to publish research
- Advance science/ improve health outcomes
- Disseminate your (hard) work
- Enhance your status/track record/reputation
- Improve chances for promotion
- Improve likelihood for research grants



# Rewards for being a good writer

- Writing time is productive & less frustrating
- Peers take you more seriously
- Your research is more likely to lead to publications
- Your grant applications are more likely to be funded
- You will become a good reviewer or editor





**Isaac Newton**  
(1643–1727)

“Isaac Newton was famously reluctant to publish, and when he did, to put his name to the work.”

*Drummond Rennie*





**Yuri Timofeevich Struchkov (1926-1995)**

**Crystallographer**

**Yuri Struchkov published one paper every 3.9 days  
for 10 years**

*Drummond Rennie*

**He had only one hand!**



# Some basics....

- *Thought* – having worthwhile ideas and results to publish, correct interpretation
- *Structure* – getting the right things in the right place
- *Style* – choosing the fewest and most appropriate words and using good rules of grammar



# Some Do's

## Perspectives from an editor



# Your article must be readable

- Structure – **IMRD**
- Flow of the (scientific) story
- Minimise repetition (space expensive), with balance between enough information and brevity



# IMRD - Introduction

- Short – one page
- Para 1: What we know
  - Current knowledge
  - Literature review
- Para 2: What we don't know
  - Limitations in other studies
  - Questions still to be answered
- Para 3: Why we did this study
  - Aim and objectives
  - Context



# IMRD – Methods - 1

- Be clear – so that others may be able to reproduce your work
- Study design  
(observational, qualitative)
- Participants  
(population, sampling size)
- Questionnaires  
(how developed, validated)



# IMRD – Methods - 2

- Interventions done  
(treatment, educational, etc)
- Clinical assessments done  
(collection of clinical data)
- Statistical methods done  
(Tests, P values, CI's)
- Ethical considerations & approval



# IMRD – Results

- Most important part of article
- Provide answers to the stated research question(s)
- Focus on new knowledge
- Results  $\neq$  data, but rather their meaning
- Use of text v/s tables, figures
  - Avoid repetition
  - Text to highlight items, trends
  - Figures to grab attention
  - Tables to provide detail



# IMRD – Results - Structure

1. Who did you study?  
(characteristics of participants → generalisability)
2. How many participants had what?  
(e.g. 50% had HPT)
3. Relationship between outcome and explanatory variables  
(e.g. family history → HPT)
4. What is the result when confounders and effect modifiers are taken into account?  
(e.g. effect of smoking and family history)



# IMRD - Discussion

- Aim: For others to appreciate the value & implications of your work
- Reiterate your main findings
- Put results in context of furthering knowledge, impacting on patient care, policy, research



# IMRD – Discussion - Structure

1. What did study show?
2. Strengths & weaknesses of methods
3. Compare to current knowledge
4. Impact on clinical practice/ policy
5. Future directions for action/ research



# The Abstract

- Condensed form of the article
- Much wider distribution than article!
- Medline only accepts 250 words
- Trim and trim again!
- Structured v/s unstructured



# The Abstract - Structure

1. Aim & objectives
2. Setting
3. Study design & methods
4. Main results & stats significance
5. Conclusion & interpretation



# References - 1

- Give credit to others
- Cite original work (get a copy)
- Most recent – keep up to date during progress of study
- Use electronic reference manager
- Be selective: peer reviewed, rigorous studies



# References - 2

- Number: 20 – 35
- Style: e.g. Vancouver
- Accuracy – your responsibility
- Personal communication?
- Web references – date accessed



# Choose your journal carefully

- Focus & Scope
- Impact factor (higher = better ?)
- Government subsidy (e.g SA system)
- Indexing (Medline, EMBASE, etc)
- Availability on internet
- Open access v/s subscription
- Cost to publish – author fees



# Impact factor

- Bibliometric indicator of average citing frequency
- No. of cites/articles published
- Higher is better (e.g  $12 > 2$ )
- = “importance” of journal?
- Manipulation
- Differences between disciplines



# Thompson WoS (ISI)

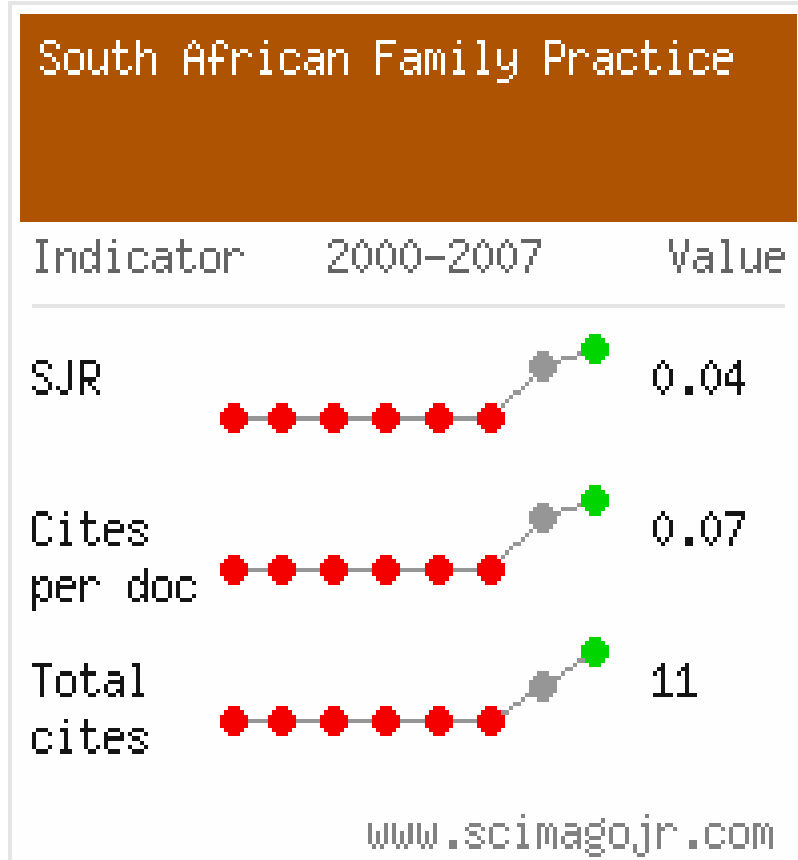
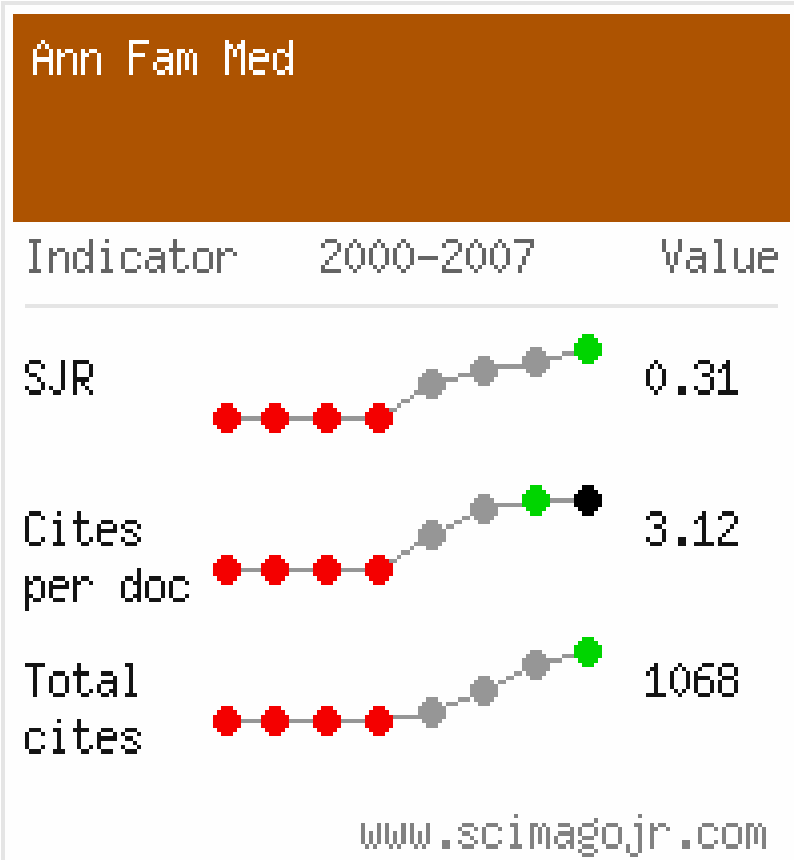
- 8,700 “leading” journals
- 80/20 principle
- Criticisms
  - Bias to “free market oriented” research
  - Over counting
  - Exclusion of 80%
  - Ignores local importance





# SCImago Journal & Country Rank

## SCOPUS





[Consultation length in general practice: cross sectional study in six European countries](#) - [► bmjournals.com](#) [PDF]

... A van den Brink-Muinen, J Bensing, J De Maeseneer - British Medical Journal, 2002 - Br Med Assoc

Objectives To compare determinants of consultation length discussed in the literature with those found in consultations with general practitioners from different European countries; to explore the determinants of consultation ...

[Cited by 107](#) - [Related articles](#) - [Web Search](#) - [BL Direct](#) - [All 6 versions](#)

[The need for research in primary care](#)

JM De Maeseneer, ML van Driel, LA Green, C van ... - The Lancet, 2003 - Elsevier

Making evidence from scientific studies available to clinical practice has been expected to directly improve quality of care, but this expectation has not been realised. The notion of quality of care is complex, and quality improvement ...

[Cited by 65](#) - [Related articles](#) - [Web Search](#) - [All 3 versions](#)

# Use the author guidelines!

- Metadata (author info, abstract)
- Formatting
- Length, word count, tables, figures
- Style and system of referencing
- Correct submission (paper, online)
- Uniform requirements (ICMJE) –  
*www.icmje.org*



# ICMJE rules for authorship

## All 3 must be met:

1. **Substantial contribution** to conception and design, OR analysis of data.
2. **Drafting** the article OR **revising** it critically for important intellectual content
3. Final **approval** for version to be published



# Mention ethical issues

- Measures taken to obtain consent, protect confidentiality
- Ethical approval obtained
- Competing interests: e.g. funding sources, other sources of support



# Get language assistance

- Spelling, grammar and clarity
  - Co-authors
  - Other colleagues
  - English teachers
  - Language experts



# Respond appropriately and timely to the peer review report

- Response time (3-6 m)
- Be polite and appreciative
- Respond to each suggestion in a table attached to your new draft
- Say what you changed and what not, and give reasons why not
- Make all changes in tracking or different text colour



# Look carefully at the galleys

- Short response time!
- Last chance to pick up mistakes
- Only minor changes allowed (punctuation, errors)
- Ultimate responsibility of author



# Some Don'ts

Perspectives from an editor



# Don't send.... (1)

- Mini-thesis as is for publication
- Sloppy grammar and poorly prepared manuscript (overall impression)
- A small local survey to the most prestigious journal in your field
- A manuscript to more than one journal at the same time and withdraw suddenly



# Don't.... (2)

- Wait 5 years to publish, and not update your references
- Attack the peer-reviewers in your response
- Wait for the editor to plead with you to make the final changes to your manuscript
- Re-write the article in the galley proofreading stage



# Don't.... (3)

- **give up if at first rejected → try another journal**
- **Remember.....**



**Editors need authors more  
than authors need editors**  
*(but don't push your luck)*

*Richard Smith*  
*Editor, BMJ*

