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Workshop

How to write a successful paper

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Part 1

International scientific, technical and medical research publishing: current aspects and readers' needs



M. Xeridat, in Van Kolschooten F. Can you believe what you read? Nature 2002;416:360-363

1. Science journals: service to the research community or profit-making product?



“NPG journals had the **highest rated impact factor** in every discipline in which we publish; the newly-launched Nature Reviews showed **impact factors 2-3 times higher** than their long-established **competitors** which have been published for over 15 years, and Nature Materials debuted with an **impact factor** of 10.8, **outstripping its main competitor**, Advanced Materials, by over 3 points to be not only the **highest ranked journal** in Materials Science but in all of physics.”

(Charkin 2004)

Two main economic models:
Commercial vs. society (not-for-profit) publisher.

Both produce good journals to attract good manuscripts.

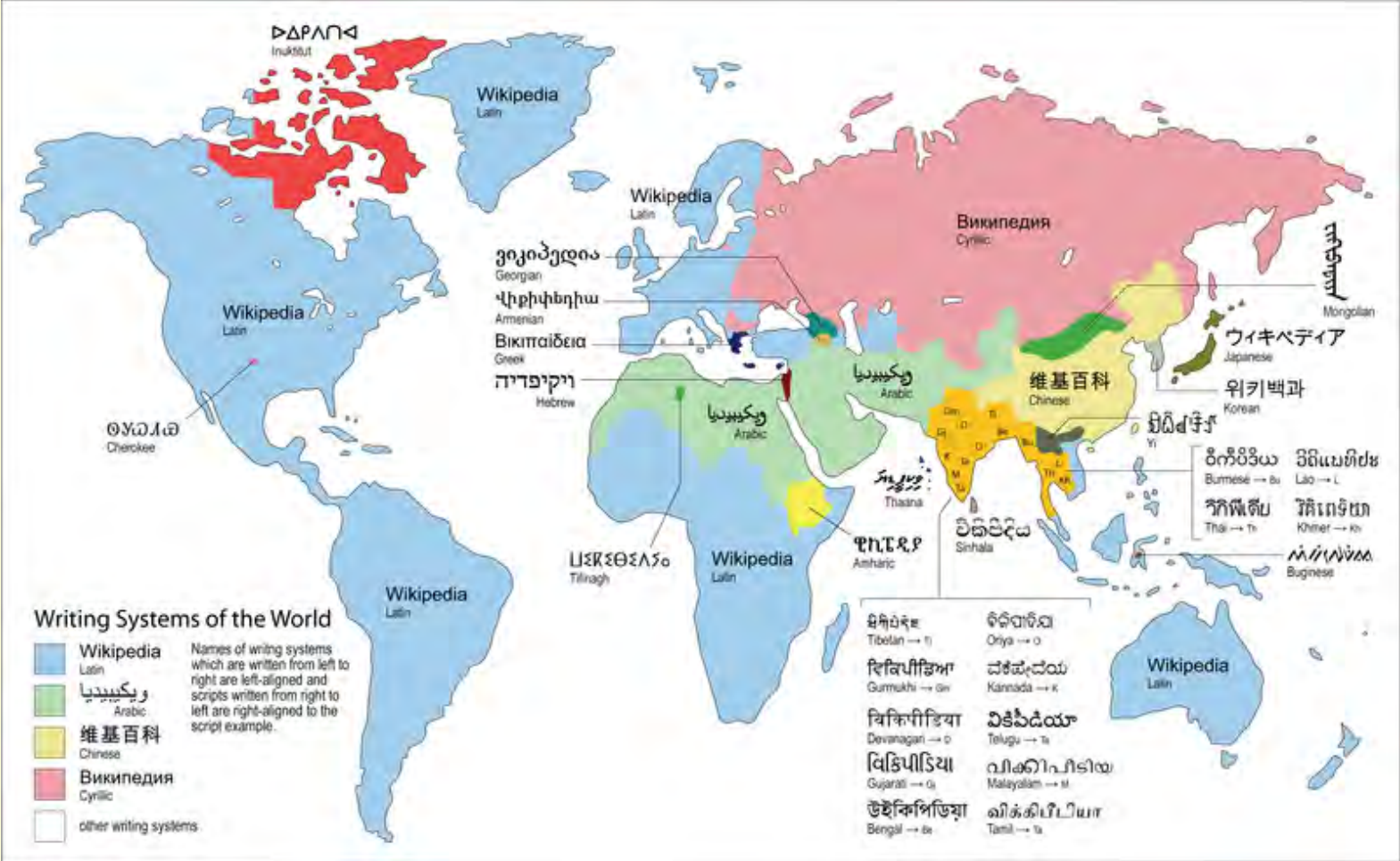
But the priorities and criteria for acceptance may not be the same.

Understanding the publisher's economic model and “philosophy” can provide insight into their editorial policies.

Insight into their policies can help authors select target journals with better chances of **success**:

- more favorable reception
- faster review and publication

2. Anglocentrism and globalization



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English linguistic imperialism:
“the dominance asserted and
maintained by the establishment and
continuous reconstitution of structural
and cultural inequalities between
English and other languages”

(Anonymous, Wikipedia, citing Robert Phillipson)

“Some authors have voiced concerns about the dominance of the English language and US publications in the ISI database as possible sources of bias, but author biases may be more influential.”

(Chew, Villanueva, Van Der Weyden 2007)

“Like native English speakers, authors in countries where English is not the first language prefer to publish in English (possibly as such articles have a higher impact than those in their native tongue); they also prefer to cite English-language articles, even in non-English language publications.”

(Chew, Villanueva, Van Der Weyden 2007)

More information (too much!),
therefore less time to analyze
information critically.

Increasing dependence on
information technology.

Literature review strategies narrower
and less complete than in the pre-
Internet era.

Consequences for literature searches:

Older studies (pre-Internet publishing technology),
studies not available online (access policies), and
studies not in English
tend to be overlooked.

Therefore:

To reach the right **readers**,
researchers need to have a
publication strategy in addition to
good research and **good writing**
skills.

3. What do editors want?



**M. Xeridat, in Van Kolschooten
F. Can you believe what you
read? Nature 2002;416:360-363**

The Guardian



At ***BMJ***:

- sound science and statistics
- new information
- papers that will be read and cited
- papers that are well written

(Langdon-Neuner 2008)

At *Diabetologia*:

- tell a story
- message communicated in 2-3 sentences
- new, interesting
- basic information for a sensible and intelligent reader unfamiliar with the subject area

(Gale 2008)

Articles likely to:

- have a high impact
- receive media coverage
(controversial, current topics)
- have high citation potential
- increase the impact factor

(Chew, Villanueva and Van Der Weyden 2007)

What should **authors** want?

An optimal match between your work and the journal's mission

(Guyatt and Haynes, 2006)

Study and compare potential target journals.

Part 2

Writing to make your results easy to understand



1. A **title** that reflects the contents

What subjects? What population?

What conditions? Where?

What setting (local, national,
regional, international)?

Experimental or observational
(noninterventive)?

When?

1. Title

Emphasis on the hypothesis, the method, or the results?

Should the title state the conclusion?

Consult examples in your **target journal**.

Revise the title after the main text and abstract are finished.

2. An **Abstract** that reflects the contents.

Re-revise the abstract after the main manuscript is completely finished.

2. Abstract

No discrepancies in the information in the abstract, main text, and tables or figures for:

terminology, sample size, population size, numerical data.

3. An **Introduction** that attracts attention and identifies the **target population** of readers

- Interesting first sentence
- Identify the problem or gap in knowledge.
- Explain why it is a problem.
- State your proposed solution.
- Say how you tested your solution.

4. **Methods** that don't keep secrets.

No secret ingredients or secret tech



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4. Methods

Supplementary information?

Internet publishing means unlimited space *but* readers don't have unlimited time to search and read everything.

5. Results that focus on the question asked in the Introduction.

Figures and tables that focus on the question asked, and the data that help readers answer it for themselves without reading the Discussion.

5. Results that focus on the question asked in the Introduction.

If you present data clearly, the readers will be able to foresee your conclusions, and your article will be more convincing.

6. A **Discussion** that explains what your findings mean.

Answer the **question** you asked in the **Introduction**.

6. A **Discussion** that is critical of your own study.

- Identify the limitations.
- Explain how far the conclusions can be generalized.
- Suggest new studies that could help answer questions that require more data.

EXERCISE

Please write a title for the abstracts.

What specialty do you think the articles are from?

What specialists need to read this article to improve their research or clinical care?

1. Interaction between p53 codon 72 polymorphism and melanocortin 1 receptor variants on suntan response and cutaneous melanoma risk

*British Journal of **Dermatology***

2. Germline and somatic c-met mutations in multifocal/bilateral and sporadic papillary renal carcinomas of selected patients

*International Journal of **Oncology***

3. Mechanism of hypotensive transients associated with abrupt bradycardias in conscious rabbits

*Canadian Journal of **Cardiology***

Part 3

Good scientific English style



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Who can help you improve your writing?

Native speakers of English?

Specialized translator or author's editor?

Scientific peers and subject experts?

1. Language and usage:

Grammar and syntax

Specialized terminology and usage

2. Content and writing:

Organization and logical flow

Rhetoric and persuasiveness

Grammar, syntax:

Well-educated native speaker,
preferably with specialized
knowledge

Terminology, usage:

Subject expert or specialized
translator or editor

Organization, logical flow:

Reviewer or well-educated native speaker, translator/editor

Rhetoric, persuasiveness:

Reviewer or experienced translator or editor, preferably with specialized knowledge

Local peers and advisors

Experts in the scientific content

Author's editors

Experts in written communication

When? Before manuscript submittal

Author's editors

- help authors to produce writing that will effectively communicate their message to the target audience
- help ensure that the text is read with respect for and attention to the content

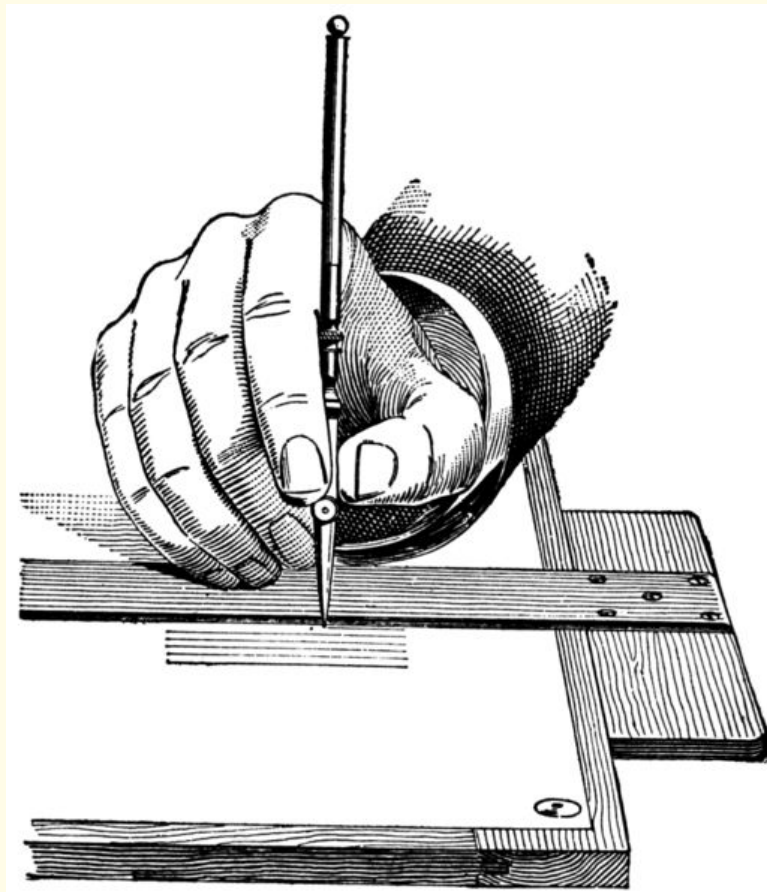
EXERCISE

Please study the abstracts to see if they can be understood after just one quick read.

Please identify different types of writing problems: use of language (grammar, terminology, usage) or organization and logic (flow, persuasiveness).

Part 4

Good scientific English style
Some practical examples



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Goal: a text that is clear and accurate, not a work of art

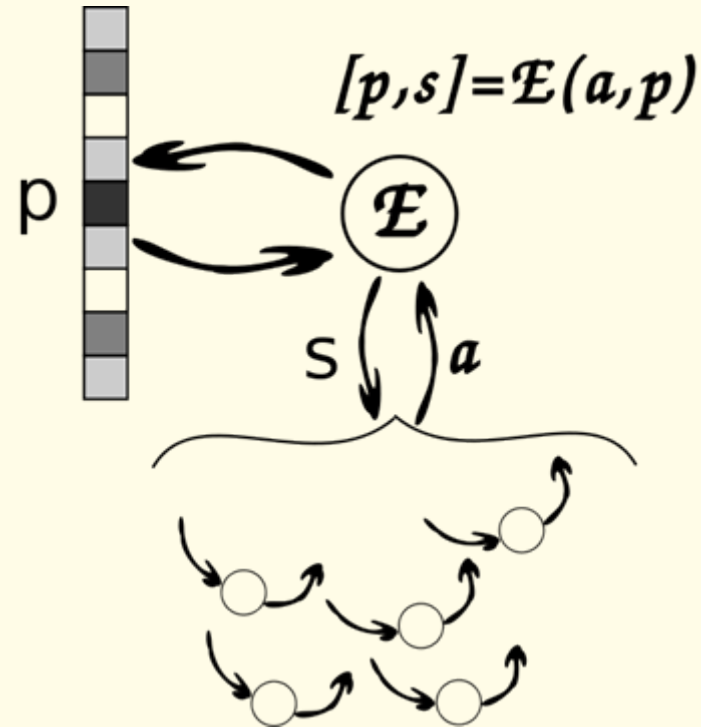


EL SEQVENTE triúpho nó meno mirauagliofo d'l primo. Impo che gli hauea le q̄tro uolubile rote tutte, & gli radii, & il meditullo defu fco achate, di cãdide uẽule uagamẽte uaricato. Ne tale certãnte gẽstoe re Pyrro cũ le noue Muse & Apolline i medio pulsãte dalla natura ip̄sso.

Laxide & la forma del dicto q̄le el primo, ma le tabelle eraõ di cyaneo Saphyro orientale, atomato de scintille d'oro, alla magica gratissimo, & longo acceptissimo a cupidine nella sinistra mano.

Nella tabella dextra mirai exscalpto una insigne Matrõa che dui oui hauea parturito, in uno cubile regio colloca ta, di uno mirabile pallacio, Cum obstetrices tu pefacte, & multe altre matrone & astante Nymphe Degli quali uscua de uno una flammula, & delal tro ouo due spectatissi me stelle.

* *
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How do I start writing?

- Use whatever strategy works for you.
- Be prepared to think hard about who your **readers** will be and what they need to know.
- Be prepared to make many changes.

Writing strategies

- Make notes or draft parts of the text any time you have an idea.
- Make an outline.
- Make a list of references that should be cited.
- Write the easy parts first and the hard parts last.

Make English your ally for clear communication, not your opponent.

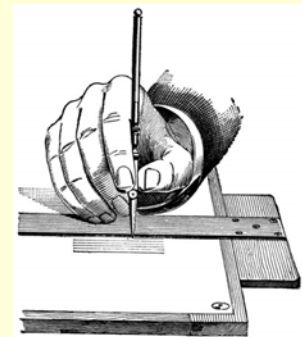
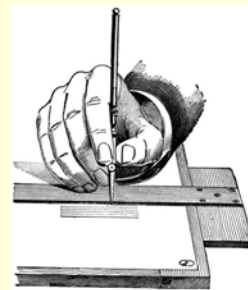
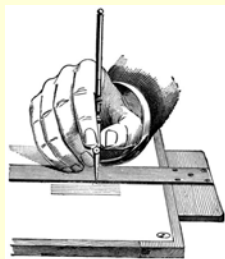
The reader needs to be convinced that your findings are **logical, valid, and supported by solid evidence**, not impressed by your writing style.



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1. A simple and boring text is better than a complex, “interesting” text that is hard to understand.

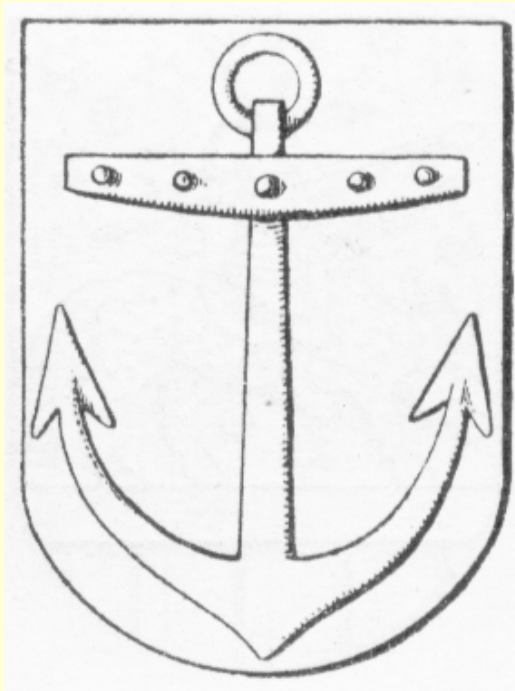
2. Revise, correct and rewrite patiently.
It is normal for a good article to be rewritten many times before it is clear enough for **readers** to understand easily.



3. Ask a specific question. Provide a specific answer.

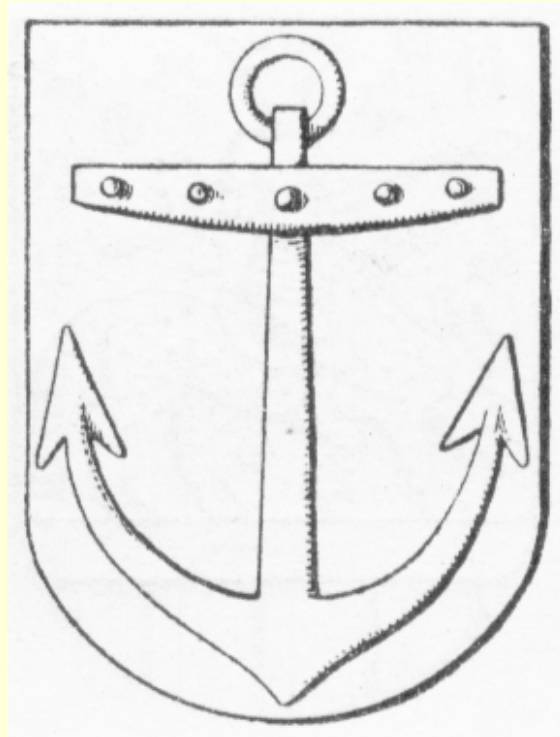
Your **statement of purpose (at the end of the Introduction)** is the anchor for the whole article.

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3. Refer to your statement of purpose often while writing and revising, to stay **focussed** on the aim of the study and the new, original, key results.

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4. What are your results and what do they mean for other researchers?

Eliminate discussion and references that are not related to the research question posed in the Introduction.



5. Relate the conclusions explicitly to the aim of the study.



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Make reading simple, not stormy.

6. Don't copy and paste from other articles. The English may not be very good.

Many articles in an unreadable writing style are published even in top journals.

would tell us that writing well can boost the authors' chances of getting published. Even so, attention to language among scientists is still scant, which would account for the number of unreadable articles published even in top-tier journals. In a Letter published in the *British Medical Journal*⁶, the author reports that "over the past 20 years..." many articles have shown "that medical information (such as journal articles, informed consent forms) is written in an 'unreadable' writing style." Among the authors of such texts are NES researchers, as even those writing in their mother tongue can be poor writers. However, improving writing skills in the native

Vasconcelos SMR. Writing up research in English: Choice or necessity? Rev Col Bras Cir 2007; 34:1-2

Even manuscripts written by native speakers of English are frequently criticized for poor English.

It has frequently been said that despite the fact of having English as their first language, authors who fulfil this criterion may nonetheless receive frequent negative feedback due to the unfeasibility of discerning the meaning in their written communications.

Tell a simple story to explain and convince, not to deceive or oversell.

The human element is okay.

A narrative sequence that mentions surprises, insights or even errors helps to **keep the readers interested in the conclusions.**

How does your research story end?

Part 5

Peer review, feedback, and manuscript revision:

Accept good advice but resist bad advice.

“Researchers overwhelmingly (90%) said the main area of effectiveness of peer review was in improving the quality of the published paper, and a similar percentage said it had improved their own last published paper, including **identifying scientific errors and missed and inaccurate references.**”

(Ware 2008)

“Our experience is that substantial improvements on the basis of reviewers’ comments are unusual, but do happen on occasion.”

(Guyatt and Haynes 2006)

“If I believe a referee is mistaken in his/her concern, and I know a way to defuse that mistaken concern without telling the referee that he/she is mistaken, then I will use that way because the probability of surviving the review process decreases when referee concerns are challenged rather than accepted.”

(Wright and Armstrong 2008, quoting an anonymous researcher)

Competencies:

Scientific expertise *and*
language/writing expertise?

Are reviewers always right about the
English, the language and the writing?

“Far from this being an occasional occurrence, it seems that the excuse of poor English is used as a way of rejecting manuscripts, a handy tool to have in these days of heavy submission loads and the need to ‘cull’ manuscripts before peer review.”

(Cooter 2008)

Editors and reviewers are rarely trained in editing or reviewing skills.

Editing a journal and reviewing manuscripts are mostly unpaid (or poorly paid), volunteer, amateur services to science.

If the gatekeepers responsible for editorial quality control are not trained in quality control skills, we cannot assume they are all skillful editors or reviewers, even though they are very skillful researchers and subject experts.

For most researchers, and therefore most reviewers, English is not their first language.

But even if English is the reviewer's first language...

“Through the Anglo-American hegemony, UK- and US-based referees’ comments often not only force a non-native English-speaking author to rewrite his/her paper, but also increase the ‘creative destruction’ of a paper.”

Aalbers MB. Creative destruction through the Anglo-American hegemony: a non-Anglo-American view on publications, referees, and language. Area 2004; 36: 319-322

EXERCISE

What should you do if you disagree with a reviewer's criticism or request for modification in the manuscript? Why?

Conclusions



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Every journal is different, every editor is different, but good writing is the same: **clear, rigorous and convincing.**

Impartial Judgment by the “Gatekeepers” of Science: Fallibility and Accountability in the Peer Review Process

Methods

Participants and procedures

To measure mortality we did a national cross-sectional cohort study of deaths from January, 2002, through July, 2006. Household information was gathered about deaths that occurred between January of March 18, 2003, in all households compared with deaths that occurred through to the date of 12000 was calculated to doubling of an estimated pr

AT^{1*}, JOSEPH S. GONNELLA¹ and H²

RESULTS

Methodological and Statistical Content Study

Less than half of the 166 journals provided information on statistical methods (Table 1). Eighty-seven percent (13/15) of general journals and 36% (54/151) of specialty journals made reference to ICMJE uniform requirements.¹¹ Fifty-three percent

Clear:

The **reader** doesn't need to read the same sentence or paragraph more than once, and can navigate all parts of the article easily.

Rigorous:

- The results (including tables and figures) follow from the methods.
- The discussion follows from the introduction.
- Limitations and possible additional studies are noted.

Convincing:

- Focus on answering the question asked in the introduction.
- Don't overstate or exaggerate your conclusions.
- Search for and correct technical errors.

Convincing:

Be confident in the interest and usefulness of **your** findings.



Thank-you very much for your participation.

AuthorAID in the Eastern Mediterranean