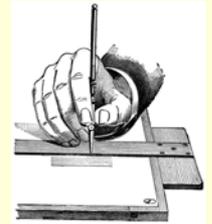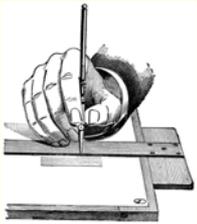**10th National Congress of Medical Education in Iran, 5-7 May 2009**
Ministry of Health and Medical Education in Iran
Shiraz University of Medical Sciences

Workshop

Strategies for effective research publication

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Part 1
International scientific, technical and medical research publishing: current aspects and readers' needs

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

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

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"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."
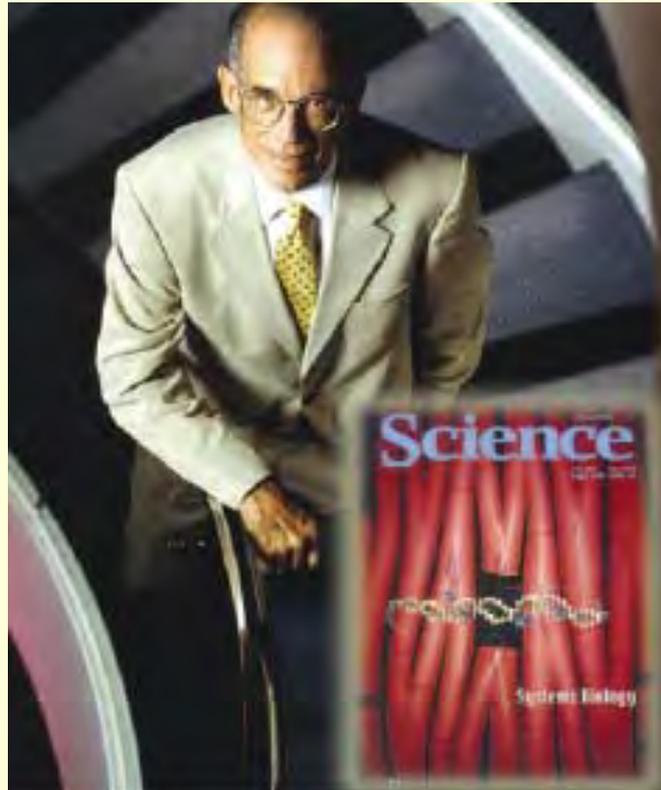
(Charkin 2004)

In July 2007 AAAS, publishers of *Science*, removed this journal from JSTOR.
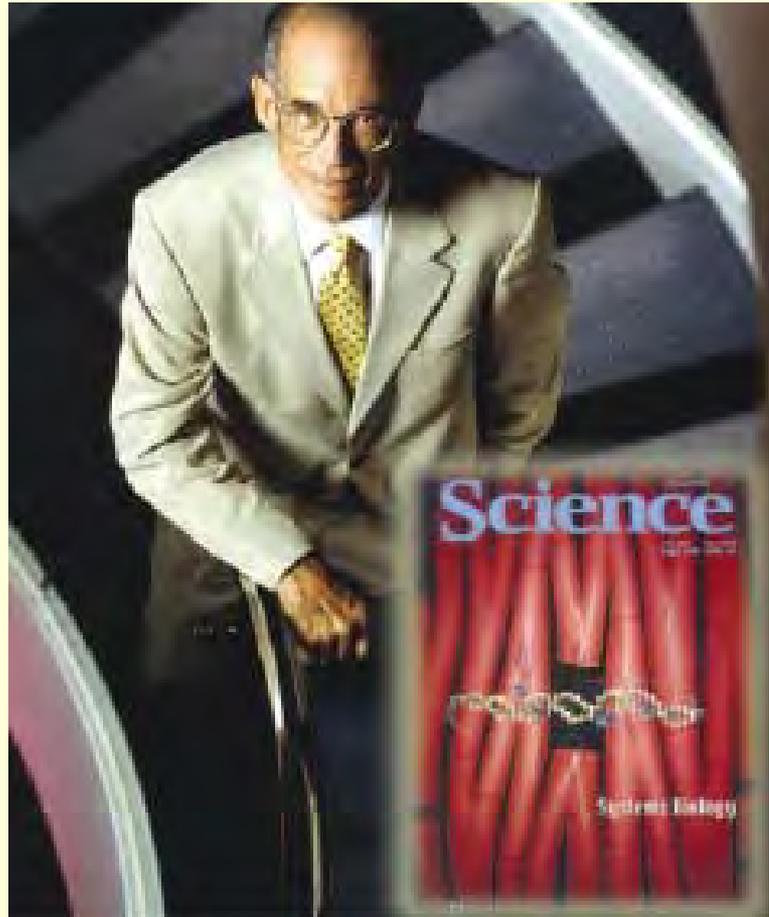
M. Xeridat, in Van Kolfschooten F. Can you believe what you read? Nature 2002;416:360-363

In January 2008 the AAAS quietly agreed to allow *Science* to be included in JSTOR again, but gave no information about the terms.

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

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

Both produce good journals to attract good manuscripts.

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

Mapa Lingüístico e suas principais línguas

Legend:
- Inglês
- Espanhol
- Francês
- Chinês
- Malaio-polinésio
- Português
- Russo
- Árabe
- Outras
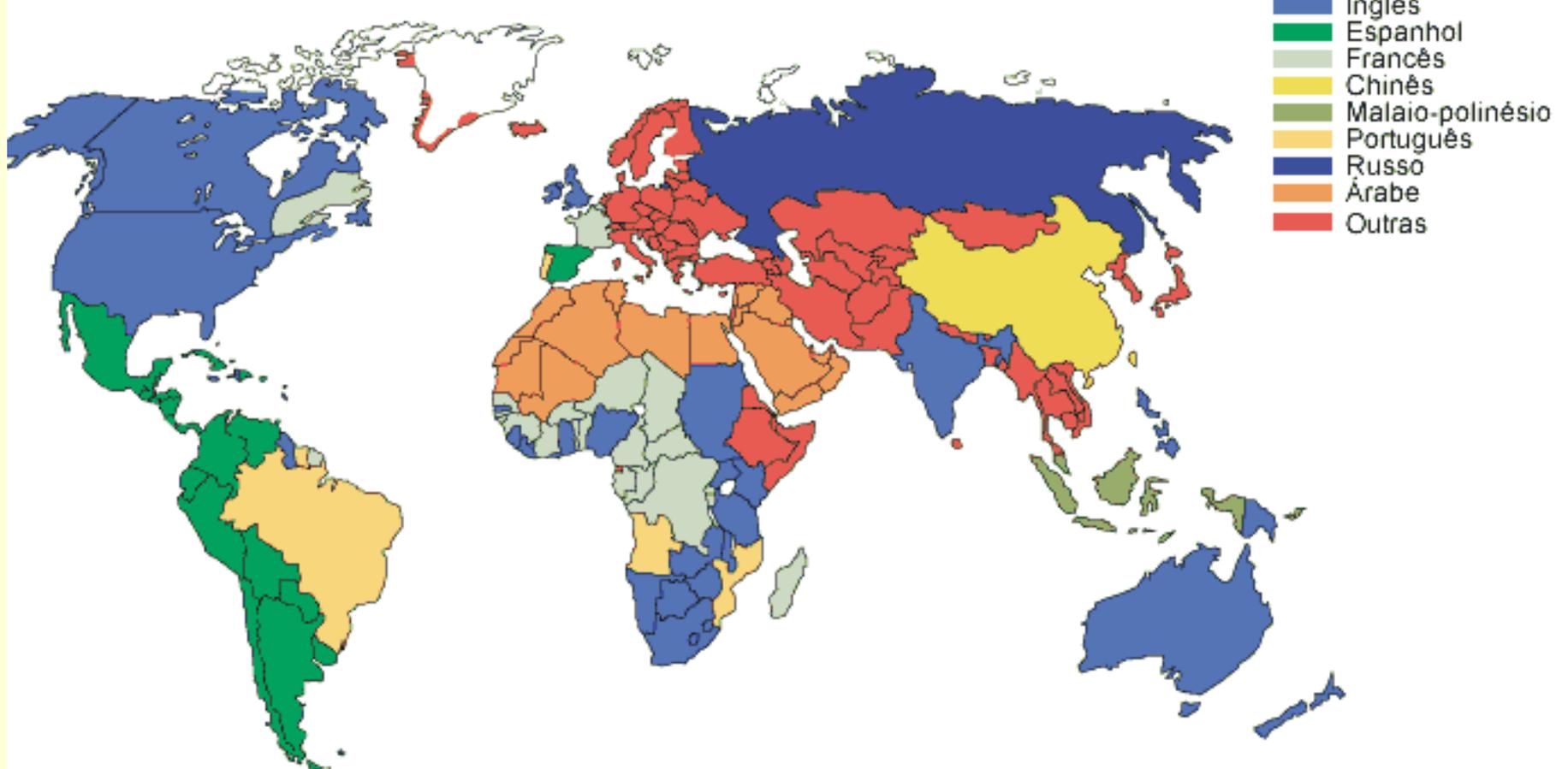
English linguistic imperialism:
"the dominance asserted and maintained by the establishment and continuous reconstitution of structural and cultural inequalities between English and other languages"

(Anonymous, Wikepedia, citing Robert Phillipson)

"It appears that Google [is] beginning to evolve into a one-stop place for research despite the severe limitations of Google's search technology, especially for the academic community."

(Esposito 2008)

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:

Important sources tend to be overlooked:

1. older studies (pre-Internet publishing technology)
2. studies not available online (access policies)
3. studies not in English

Therefore:

To reach the right **readers**, researchers need to have

1. good research skills
2. good information-seeking skills
3. good writing skills
4. a publication strategy

What should **authors** want?

An optimal match between your work and the journal's mission **(Guyatt and Haynes, 2006)**

How can the article be exposed to the greatest number of most interested **readers**?

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 (noninterventional)?

When?

1. **Title**

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

Should the title state the conclusion?

Consult examples in your **target journal**.

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.
- State your proposed solution.
- Say how you tested your solution.

3. **Introduction**

Should the Introduction end with a summary of the conclusions?

Often, in social science and humanities journals.
Usually not, in science, technical or medical journals.
Check your **target journal**.

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

No secret ingredients or secret techniques please!

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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.

6. Should the **Discussion** begin with a summary of the results?

It depends on the discipline and the editor's preference. Check your **target journal**.

2.1. 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?

2.1. EXERCISE

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

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

If you are able to identify the types of problems in the writing, you will be able to identify the best person to help you.

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3.1. EXERCISE

Please analyze the sample manuscript to see if it satisfies the goals for clear writing.

Please identify different types of writing problems: use of "the English" (language and writing) or scientific content and logic.
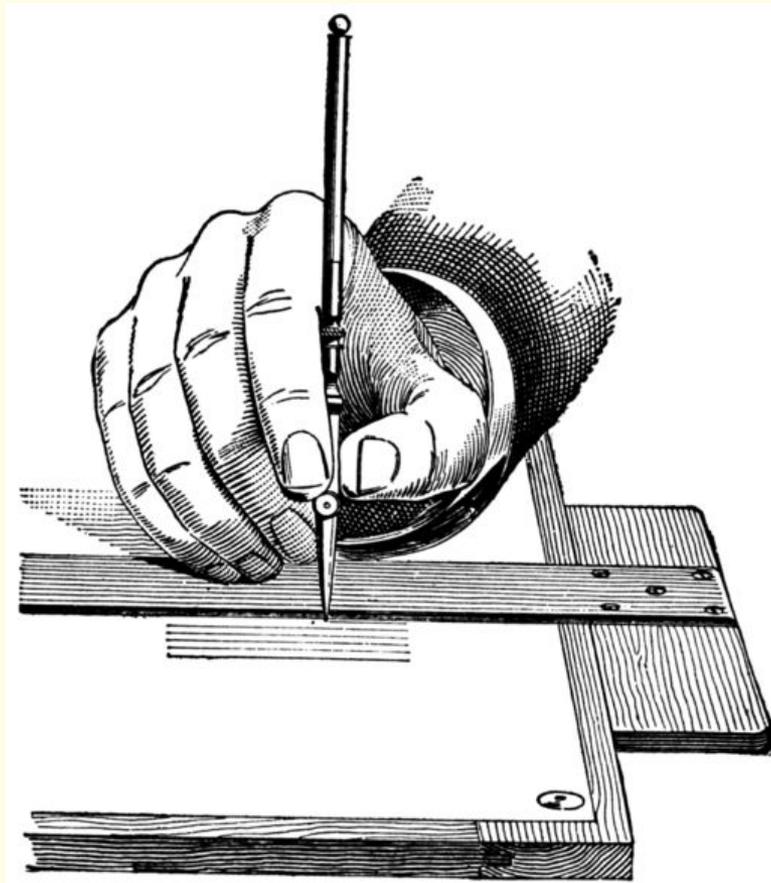
3.1. EXERCISE (cont.)

Do you think the readers of the article will be confident in the study and convinced about the findings?

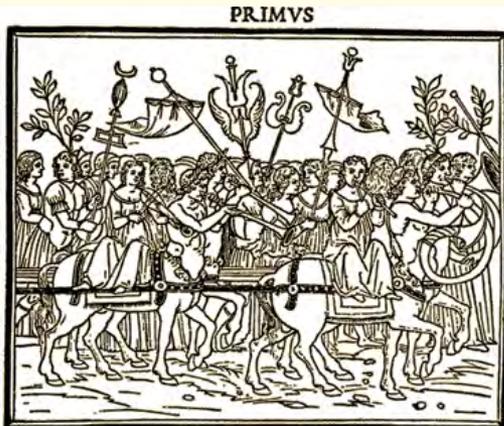Please note places where the manuscript 1) inspires confidence or 2) may lead the reader to have doubts.

Part 4
Good scientific English style
Some practical examples

Wikimedia Commons

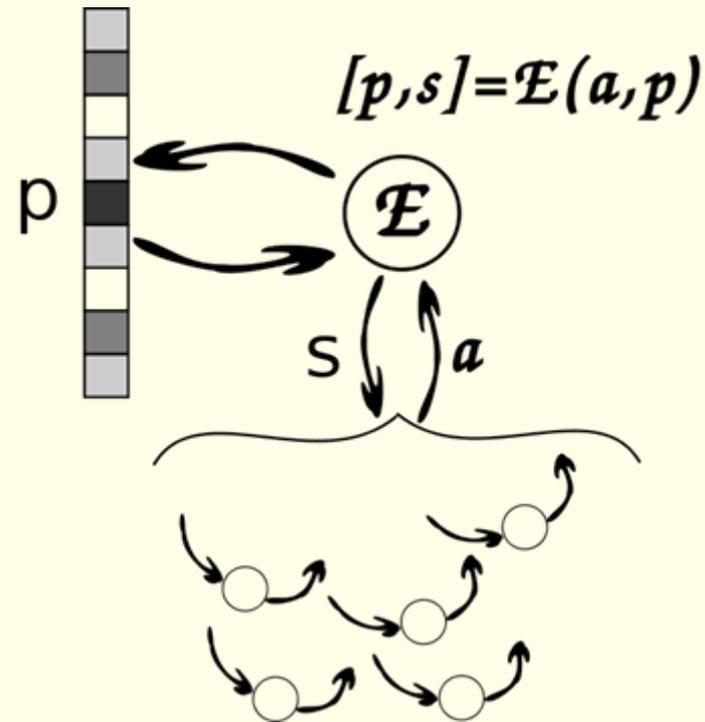# **Goal:** a text that is clear and accurate, not a work of art

$$[p,s]=\mathcal{E}(a,p)$$

p

s   a

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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.

Wikimedia Commons

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.
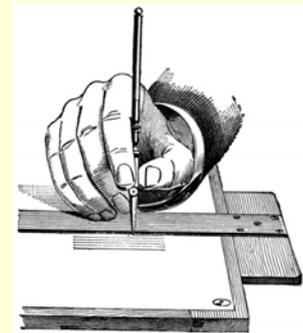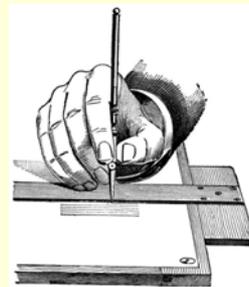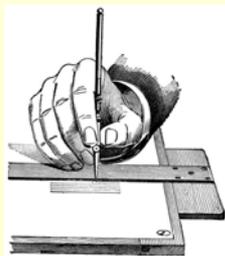
Wikimedia Commons

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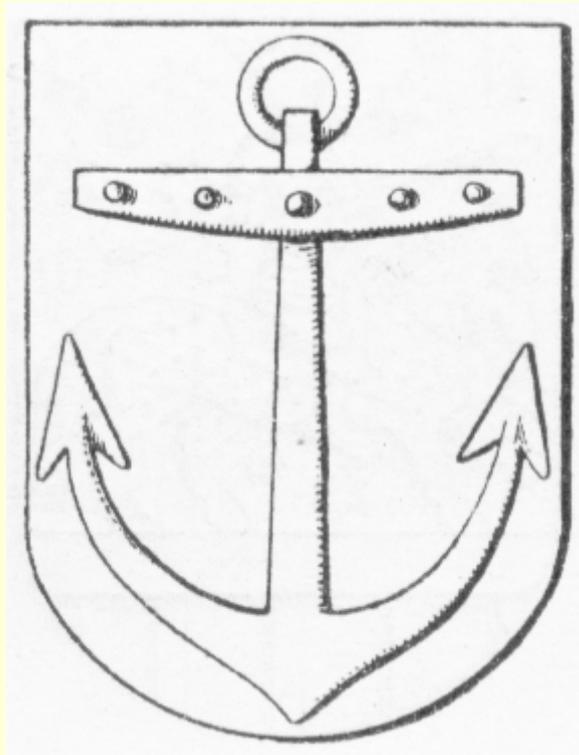
4. What are your results and what do they mean for other researchers?

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

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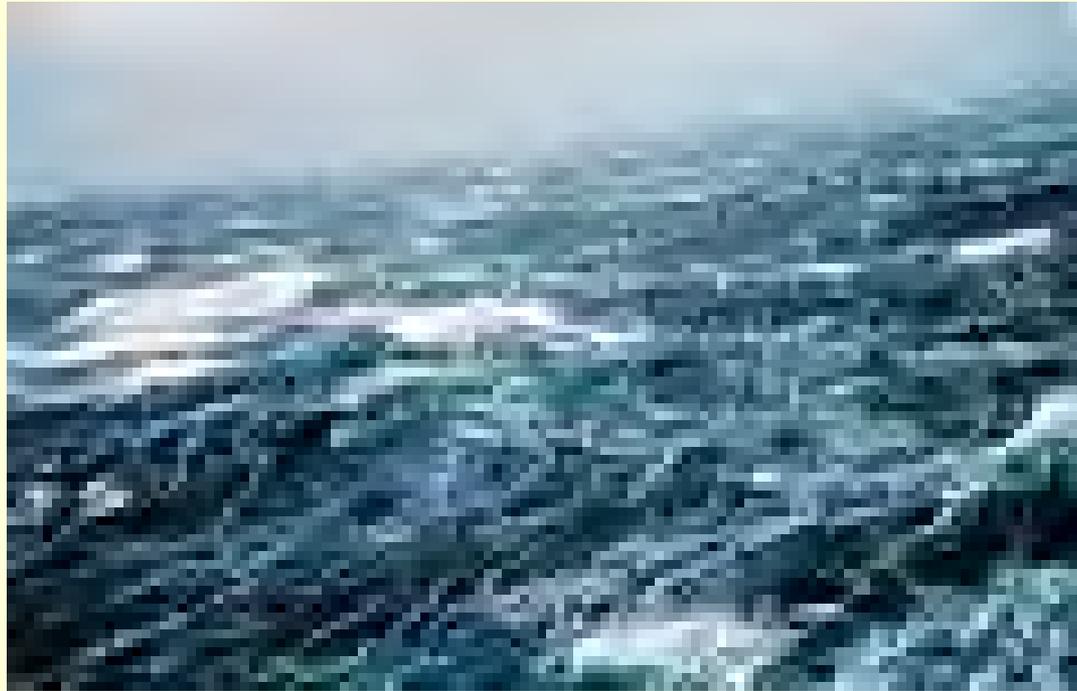
Wikimedia Commons

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?

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.

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

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

4.1. EXERCISE

Please edit sentences or paragraphs from the sample manuscript to make the text easier to understand.

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)

Competencies:
Scientific expertise or language/writing expertise?

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

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

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.

"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)

"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

Good language professionals are more sensitive to and tolerant of alternative uses of English than journal gatekeepers are.

Language professionals usually know more about good English than the reviewers and editors.

"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)

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.

Gatekeepers are usually happy to learn.

But gatekeepers may assume omniscience and overestimate their expertise.

(Shashok 2008)

5.1. EXERCISE

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

Conclusions

www.shiraz city.org

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

AT[1]*, JOSEPH S. GONNELLA[1] and H[2]

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 Januar of March 18, 2003, in all hous compared with deaths that oc invasion through to the date of 12000 was calculated to doubling of an estimated pr

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