

School of Dentistry Shiraz University of Medical Sciences 1389 dey 27, 30 / 17, 20 Jan 2011



Workshop Research writing and publication



Karen Shashok
AuthorAID in the Eastern Mediterranean

kshashok@kshashok.com

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

Science journals

Service to the research community or profit-making product?





Wikimedia Commons

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

Both produce good journals and attract good manuscripts.

"Official" publications of a **national scientific society** may not be open to manuscripts for other countries.

Two access models:

- Payment required (subscription or pay-per-view)
- Open access

Both use peer review.

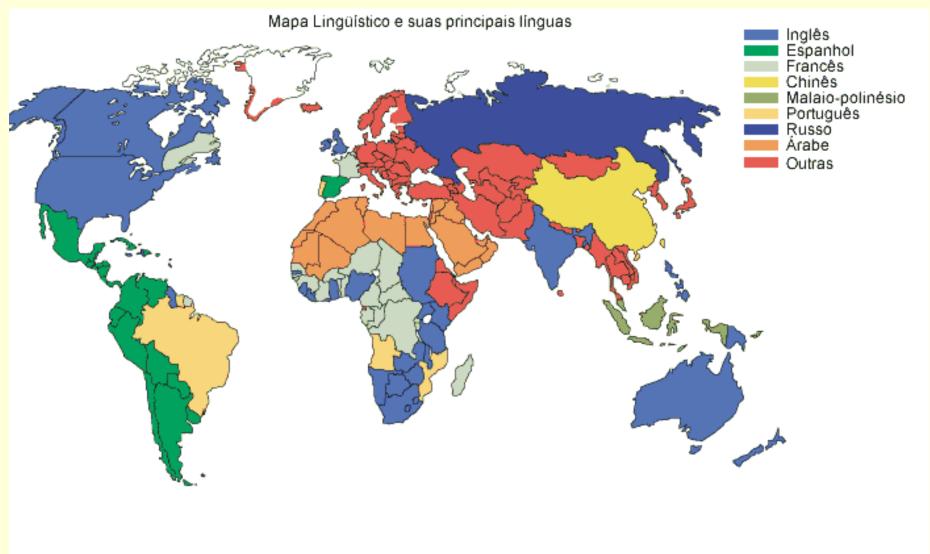
Both produce good and bad journals.

"Open access" does not always mean "author pays".

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

- more favorable reception
- faster review and publication
- communicating with readers who will use your results

Anglocentrism and globalization



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.

To reach the right **readers**, researchers need:

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

To reach the right readers

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

(Guyatt and Haynes, 2006)

Where will the article be seen by the greatest number of most interested readers?

To make a good first impression

- Invest time to compare journals.
- Write specifically for the journal.
- Follow the Instructions for Authors or Guidelines for Manuscript Preparation carefully. Details are as important as content.
- Title page, abstract, references

Part 2 Research article structure and content



Ready to write?









When you write the manuscript, ask yourself who needs to know what you found.

Before you finish the manuscript, identify the journals most likely to accept it.

A title that reflects the contents What subjects? What population? What conditions? Where? What setting (local, national, regional, international)? **Experimental or observational?** When?

Title

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

Should the title state the conclusion?

Consult examples in your target journal.

An Abstract that reflects the contents

- Re-revise the abstract after the main manuscript is completely finished.
- No discrepancies in the information in the abstract, main text, and tables or figures for: terminology, sample size, population size, numerical data

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.

Methods that don't keep secrets.

No secret ingredients or secret techniques please!



Wikimedia Commons

Methods

- Setting, population, sample
- Reproducibility
- Exact name, manufacturer, city and country of materials (apparatus, reagents, cell lines, antibodies, etc.)
- Compliance with ethics guidelines

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
- No repetition of data among text, tables and figures

Results that focus on the question asked in the Introduction

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

A Discussion that explains what your findings mean

Answer the question you asked in the Introduction.

A Discussion that is critical of your own study

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

Should the Discussion begin with a summary of the results?

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

For any questions, ask the Editor before you submit the manuscript.

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?

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 Language and writing



Wikimedia Commons

Who can help you improve your writing?

- Colleagues?
- 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

Translators

Familiar with science research writing

Authors' editors:

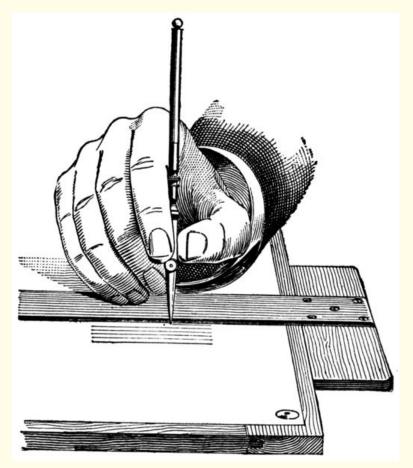
- 1. Help researchers improve their manuscripts to satisfy readers' expectations for language, content and organization
- 2. Do not write the first draft or rewrite text for the authors
- 3. Are contributors named in the Acknowledgements, but not authors named in the byline

Authors' editors:

- 4. Are often but not always native speakers of English
- **5.** Can be specialists in science, in writing, or both
- 6. Want researchers to publish successfully and learn good writing skills

Part 4

Good scientific English writing Readability and reporting



Wikimedia Commons

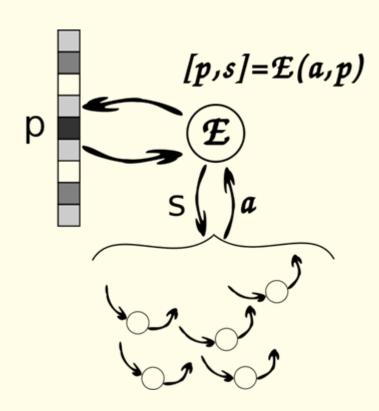
Goal: a text that is clear and accurate, not a work of art

PRIMVS



EL SEQVENTE triúpho nó meno miraueglio fo dl primo. Impo cheegli hauea le que uo lubile rotetutte, & gli radii, & il meditullo defu foo achate, di cádide ucule uagaméte ua ricato. Ne tale certa inte gesto ene Pyrrho cú le noue Muse & A polline i medio pulsáte dalla natura i písso. Laxide & la forma del dicto que le primo, ma le tabelle erá o di cyaneo Saphyro orientale, atomato de scintilluse doro, alla magica gratissimo, & longo acceptissimo a cupidine nella sinistra mano.

Nella tabella dextra mirai exfealpto una infigne Matróa che dui oui hauca parturito, in uno cubile regio colloca ta, di uno mirabile pallacio, Cum obstetricessu pesacte, & multe altre matrone & astante NympheDegli quali usciua de uno una stammula, & delaltro ouo due spectatissi me stelle.



Wikimedia Commons

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.

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.







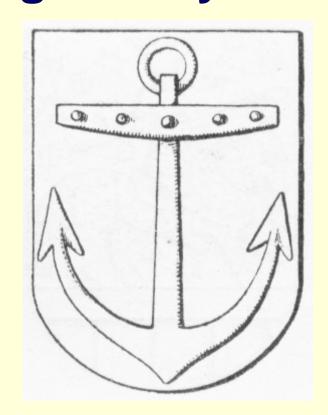
3. Ask a specific question. Provide a specific answer.

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

Wikimedia Commons



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.



Wikimedia Commons **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.



Wikimedia Commons

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







Wikimedia Commons

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

How to improve citation accuracy and avoid plagiarism

- 1. Avoid copy-and-paste.
- 2. Write or revise all the text yourself.
- 3. Insert provisional references (author-year) in the first draft.
- **4.** Paraphrase for only 1 or 2 lines and provide the reference.
- **5.** Use "verbatim quotations" for only 1 or 2 lines and provide the reference.

- 7. Emphasis on research methodology and reporting
- Follow the CONSORT and EQUATOR reporting checklists for different study designs

http://www.consort-statement.org/consort-statement/

http://www.equator-network.org

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.

Part 5

Peer review 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.

Wikimedia Commons



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

"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.

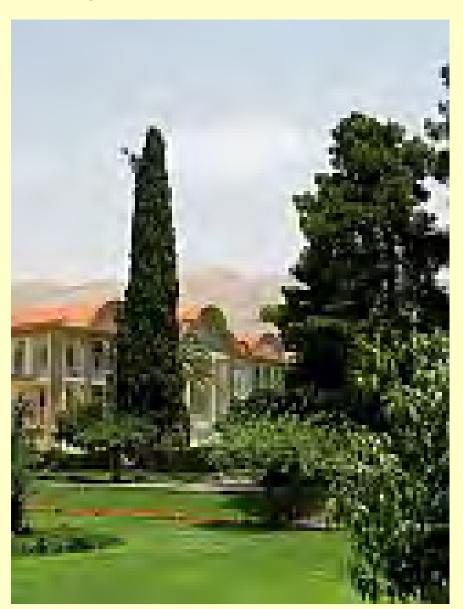
But gatekeepers may assume omniscience and overestimate their expertise.

(Shashok 2008)

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.

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

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 ---- anthornal about double that occurred between Januar RESULTS of March 18, 2003, in all hous compared with deaths that occ invasion through to the date of 12000 was calculated to

AT1*, JOSEPH S. GONNELLA1 and

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 doubling of an estimated pr 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
AuthorAID in the Eastern Mediterranean
kshashok@kshashok.com