

Scientific Writing for Seniors

Alan H. Jobe, MD, PhD
Cincinnati Children's Hospital
Cincinnati, Ohio



Scientific Writing - A Personal Perspective

- Based on J. Peds sponsored course in writing
- Edited and annotated to highlight opportunities to participate
- Participation beyond normal writing/review/editorial activities

The Journal of Pediatrics

Introduction to the Editorial Process

Why Write Manuscripts?

- To improve the care of children
- To share important observations
- As a step toward academic advancement

Why Participate in Review Process?

- *Gain knowledge/keep current*
- *Contribute experience/perspective*
- *Improve communication of knowledge*

Components of the Editorial Process

- Editor
 - Associate Editors
- Editorial Office
 - Editorial Assistant
 - Office Staff
- Editorial Board
- Reviewers
- Journal Publishers

Step 1: Editorial Assistant

- Reviews manuscript for completeness and adherence to instructions
- Flags potential concerns
 - Conflicts of interest
 - Duplicate publications
 - Copyright problems
 - Poor figures
- May return an incomplete manuscript to the authors
- *Technical - role for senior?*

Step 2: Editor-in-Chief

- Briefly reviews content of manuscript
- Assigns manuscript to an associate editor
- *Being Editor is time-consuming. Good role at end of a career.*

Step 3: Associate Editor

- Assesses the manuscript for quality/content
- Decides whether to proceed with external review

Typical Reasons for “Editorial Rejection”

- Obviously unsound science
- Main point of paper is not novel
- Writing is unintelligible
- Subject matter is not appropriate for the readership of the journal
- *Multiple roles for senior consultant*

Roles for “Senior Consultant”

- Avoid unsound/not novel research
 - Help younger investigators develop questions/perspective
- Unintelligible writing
 - Function as in-house editor
 - Association with foreign institution to assist with writing

Step 3: Associate Editor

- Chooses appropriate reviewers
- Sends manuscript for peer review
- May ask focused question(s) of reviewers

How are Reviewers Chosen?

- Expertise in an area relevant to the study
- Unlikely to be biased
- Previous experience with the Journal: prompt, courteous, helpful
- Understands priorities of the Journal
- *Senior reviewers are valued - perspective*

Step 4: Reviewer

- Reads manuscript carefully
- Advises editors about
 - Acceptability (*science, relevance*)
 - Length
 - Importance
 - Potential ethical issues

Step 5: Associate Editor's Decision

- Reassesses the manuscript
- Reviews comments from reviewers
- Makes preliminary decision
 - Reject
 - Revise
 - Accept
- Presents manuscript at editors' meeting
- Edits manuscript - *Help!*

Reviewers advise; Editors decide!

Help with editing - line by line!

- Foreign manuscripts
- Length issues
- Presentation of information (tables/figures)
- Electronic publication (where are the English majors)
- Help could be before submission/after review

Step 6: Submission to Publisher

- Editorial staff relinquishes active involvement in manuscript
- “Ownership” of work is transferred
- Authors must work carefully with publisher to assure quality of the “finished product”
- Editors may become re-involved if major changes are made in proofs

Manuscript Preparation and Submission

- Type of report
- Selecting a journal - *Senior Perspective*
- Starting to write
- The elements of a paper
 - Title and Abstract
 - Introduction
 - Results
 - Discussion
 - References

Case Reports

- Should be “novel” (*textbook rule*)
- Should provide insights into pathophysiology, diagnosis or treatment
- Should not be a coincidental association
- *Senior Perspective*

Literature Review

- Why publish? - electronic literature access, review journals, texts
- Need a theme/point of view/new perspective
- Solicited vs unsolicited reviews
- *Perspective critical for reviews*

Editorials/Commentaries

- Solicited by editors to comment on an original paper
- Authors are experts with “attitude”
- Brief and compelling
- *Comments - “Student” in Peds*

Original Articles - 1

- Clinical research is being critically reviewed
- “Observations,” clinical series, and fishing expeditions must be compelling
- An hypothesis-based prospective trial is the gold standard - positive or negative

Original Articles - 2

- Complete report of natural history with new insights is important (*opportunity?*)
- “Pilot” study of an important issue is acceptable - one “pilot” only, please
- “Least publishable units” are discouraged
- Multiple reports from one cohort or study need justification
- *Old data bases - new insights*

Selecting a Journal

- Identify your audience
- Match to a Journal's "personalities" (*subject matter, article length*)
- Look at recent issues for guidance
- Carefully read instructions to authors—page limits, reference limits, data presentation
- *Senior perspective*

Keys to Good Writing - 1

- Revise, revise, revise
- Simplify, simplify, simplify
- Shorten and focus
- Do not repeat, do not repeat....
- *Senior Perspective*

Keys to Good Writing - 2

- Have others review and comment*
- Have someone a bit distant from work read*
- Revise again

**i.e. - you*

Keys to Good Writing - 3

- Have length targets; a 5 page published article equals 9-10 manuscript text pages
 - Introduction - 1 page
 - Methods - 2-3 pages
 - Results - 2-3 pages
 - Discussion - 3-5 pages
 - Graphics - ≤ 4 tables + figures
 - References - ≤ 30

Keys to Good Writing - 4

- Spell correctly
- Use simple sentence structures
- Proofread orally—How does it sound?
- Follow format for journal

Dr. Garfunkel's Rules (*adapted from BMJ, 1990*)

- Have something to say
- Say it
- Stop once you have said it
- Give it a good title
- Don't say - "I am sorry the paper is so long, I did not have time to make it shorter"

“Your manuscript is both good and original, but the part that is good is not original, and the part that is original is not good.”

Samuel Johnson