

To Publish Or Not To Publish, A Question Of Ethics And Practice

by Gil Sapir, JD, MSc
Brian Lutmer, BS

International Association for Chemical Testing
Tucson, Ariz.

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Gil Sapir
PO Box 6950
Chicago, Ill. 60680
tele. (773) 650-1326

Brian Lutmer
Missouri Dept. Of Public Health
2875 James Blvd.
Poplar Bluff, MO 63901
tele. (573) 840-9140

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Biographical Statement

Gil Sapir is an attorney and forensic science consultant in Chicago, Illinois. He has published, lectured and testified on scientific evidence.

Brian Lutmer is the laboratory manager for the Missouri State Public Health Laboratory's Breath Alcohol Program located in Poplar Bluff, Missouri. He has published, lectured and testified on laboratory science, drugs and alcohol.

Table Of Contents

<u>Section</u>	<u>Page</u>
Abstract	5
Why Write & Publish - Reasoning	6
Objective	6
Mental Discipline	7
Author's Fear, Trepidation and Concern	7
Relevant Audience	8
Publications - Types	8
Peer Review	9
Non-peer Reviewed	12
Journal Selection	12
Publication Criteria	14
Experimental Design	15
Composition	15
Publication Content - Basic Structure	16
Writing & Composition	21
Manuscript Format	22
Review Process (peer review)	22
Editor-in-Chief	23
Reviewer (referees)	24
Plagiarism & Intellectual Misconduct/Dishonesty	26
Article Quality - Factors	29
Attribution	29

Authors - Who Deserves Credit	. . . . .	30
Manuscript Preparation (common sense)	. . . . .	31
Submitting Article	. . . . .	33
Revisions	. . . . .	34
Rejected Publication - Fatal Flaws	. . . . .	35
Accepted Article	. . . . .	36
Publisher	. . . . .	37
Authorship - Legal Aspects	38
Ethics	39
Disclaimer	39
Acknowledgment	39
Resources	40

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Sharing of a person's research is an essential precept of knowledge and growth. The most demanding principle of science is usually its dissemination through peer review publications. The imperative idiom of publish or perish pertains to furtherance of academic and professional careers. A pervasive predicament and panorama of unique problems exists concerning the feasibility of publishing results of scientific endeavors in quality journals or authoring textbooks. Publications of this nature are formally disseminated and archived as a reflection of achievement and expansive knowledge. Properly preparing and submitting a manuscript for publication is a daunting exercise in perseverance.

Too often vanity, petulance and impatience interfere with the author's objective of publishing their work. A predominately practical perspective is presented for understanding and applying basic tenets of preparing, structuring and submitting a manuscript for publication. Prior preparation prevents poor performance from initial experimental design, through writing skills, peer review approval, contractual aspects with the publisher to eventual reprints of the article or book. Motivation and quality of work product encompassing experimental design, methods, procedures, reliable data, credible results, discussion and conclusion are integrated into a quality manuscript for publication.

A general pragmatic overview and summary concerning the nature, composition and ethics of preparing and submitting a manuscript for publication is presented.

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A general pragmatic overview and summary concerning the nature, composition and ethics of preparing and submitting a manuscript for publication is presented.

I. Why Write & Publish - Reasoning

A. Ego, vanity, altruism, self-interest and posterity

1. Personal importance, level credibility

B. Paper, textbook, book chapter, proceeding abstract

C. Share ideas

1. Research, methods findings

2. Make change happen (leverage)

3. Repository of knowledge

D. Peer pressure

E. Work requirements

F. Publish or perish imperative (idiom)

- Attitude or practice of coercive pressure to continually publish relevant work to maintain or further a person's academic or professional career.

- Misplaced emphasis of journal publication as only recognized credential for researchers path for career progression.

II. Objective

A. Get Published

1. Goal of scientific research is publication for completion of committed endeavor

- B. Communication and readability
- C. Current subject matter
- D. Maintain credibility and integrity
- E. Nothing to prove
- F. Do not do anything dumb, stupid, illegal, unethical, immoral or amoral

III. Mental Discipline

- A. Perseverance

Perseverance(n): a lowly virtue whereby mediocrity achieves an inglorious success. Ambrose G. Bierce, The Devils Dictionary

- B. Read, write, rewrite - Stephen King
- C. Rejection vs. Elation
- D. Expect rejection & disappointment
- E. Publishers reject more manuscripts than accept
 - 1. Law of supply and demand
 - 2. Journal/Publisher may want article, does not need it
- F. Nothing ventured, nothing gained
- G. Manuscript revisions - expect 5 to 7 initial draft revisions before submitting for publication
- H. Admit limitations, work within competency level
- I. "Write drunk, edit sober" is misattributed to Ernest Hemingway. He wrote in the morning and didn't start drinking until the afternoon.

Writing drunk is bad advice. But sober editing is good advice.

IV. Author's Fear, Trepidation and Concern

- A. Rejection or failure

- B. Personal insecurity
- C. Inferiority complex
- D. Easier to edit than author
- E. Publish or perish imperative

V. Relevant Audience

- A. Know and acknowledge relevant audience
- B. Comprehension level
- C. Publish in greatest circulation for audience
- D. Reading circulation, not esoteric prestige

VI. Publications - Types

Processing and disseminating knowledge through a scientific publication. The most common are conference presentations (with or without some peer reviewed process) and the peer reviewed journal (print and electronic internet).

- A. Peer reviewed
- B. Paper (extensive research report)
 - 1. Full length research article
 - introduction, methods, results, discussion, conclusion etc.
- C. Technical note
- D. Case report
- E. Technical communication
- F. Article review
- G. Book review
- H. Law review articles (law school publication)
- I. Textbook

J. Book chapter

K. Proceedings (conference presentation)

L. Letter to the Editor

1. Comment to author

2. Editorial to editor

a. Follow the publication's guidelines

b. Component parts: introduction, body, summary, conclusion

c. Elements

. Subject matter (pertinent issue, event or concern to be addressed)

. Why issue or concern is important (relevant to editor, discipline and the publication)

. Specify praise or criticism, corrective action and implementation

. Keep it brief

. Sign it

d. Content: refute, advocate, compliment, criticize, educate, informative

e. Objective: courteous, clear, cogent, concise and credible

f. Reflects the writer's personality,

M. Abstracts

An abstract is a short summary of the completed research without all of the content. It describes the work without extensive detail. Abstracts are self-contained brief explanation of the work clearly and concisely.

1. Abstracts are reviewed for a presentation

2. Abstracts are presented at scientific meetings, conferences and symposiums for discussion.
3. Different from abstract contained peer reviewed article.
4. Abstracts and peer review articles are intended to share and disseminate knowledge for growth.
5. Significant difference between peer reviewed literature and what constitutes acceptance of abstract.
6. Abstracts are often developed into peer reviewed articles.

- Sezgin, Nurdan, Sukriye Karadayi, and Beytullah Karadayi. Publication rates of abstracts presented at the annual scientific meetings held by the American Academy of Forensic Sciences in 2011 and 2016. *Journal of Forensic Sciences*. vol. 67, no.1, p.207, Jan. 2022

VII. Peer Review

Manuscripts are submitted with reasonable expectation of confidential and fair expert peer review by qualified members in their field.

A. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 595 (1993)

1. *Daubert* standard evaluating scientific evidence based on reliability.
2. *Daubert* test for relevance is "good science." The reliability prong of scientific evidence consists of (1) testing, (2) peer review and publication, (3) error rate, and (4) "general acceptance" in the scientific community. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 595 (1993)
3. Peer review and publication are important components of "good science." After scientists conduct experiments and formulate a scientific theory, they must submit the theory "to the scrutiny of the scientific community" for review. Transformative interrogation for collective decisions and stability of scientific knowledge

(diversity of examination and peer review)

- Jennifer Laser, "Inconsistent Gatekeeping in Federal Courts: Application of Daubert v. Merrell Dow Pharmaceuticals, Inc. to Nonscientific Expert Testimony," *Loy. LAL Rev.*, 30(1996):1379,1404; David L. Faigman, David H. Kaye, Michael J. Saks, Joseph Sanders and Edward K. Cheng, "Ethical Standards of and Concerning Expert Witnesses," in *Modern Scientific Evidence: The Law and Science of Expert Testimony*, vol.1 (Eaton, Minn.: Thomson/West, 2017-2018), sect. 1.23, 83-86.

4. Ideally, the lengthy examination and peer review process is an unbiased, fair assessment of the scientific merit and credibility of a study.

B. Law enforcement publications, governmental publications, including NHTSA, and law review articles are not considered peer review as contemplated by *Daubert*. *U.S. v. Eric Horn*, 85 F.Supp.2d 530,556 (D. Maryland 2002).

C. Reviewed for knowledge and content

D. Application

1. Independent, external peer review, including statistical review
2. Peer review assists editors concerning publication of article
3. Enables authors revise and improve their manuscript
4. Peer reviewers suggest improvements, critique the analysis, and provide recommendations to authors and editor

E. Standards

F. Types of Review

1. Single blind review, identities of reviewers (referees) are kept hidden from authors - traditional and most common type of review

- Problem is anonymous reviewers using knowledge of authors for bias and critical assessment

2. Double blind review, the identities of both the authors and reviewers (referees) are kept hidden. Process needs to hide author's identity (no repeated citations of author's own or colleagues work throughout the submitted manuscript)

- Problem is if subject matter is relatively esoteric, knowledgeable reviewers (referees) will know identity of the author due to subject, writing style or citations

VIII. Non-peer Reviewed

- A. Reviewed by editors, peers, colleagues, supervisors
- B. Newsletters
- C. Print media (newspapers, magazines)
- D. Reports & memoranda
- E. Letters
- F. Abstracts

IX. Journal Selection

(Author in search of publisher)

- A. Impact factor of publication
 - 1. Readership, scope, affect.
 - 2. Selected language of audience (English, German, Spanish etc.)
 - 3. Focus - type of research published by journal (appropriate subject for this journal)
 - 4. Orientation - clinical, basic theoretical, applied
 - 5. Availability - public domain, broadly available, online version
 - 6. Indexing - major electronic data bases (e.g. biological, IFS, MEDLINE, PubMed)
 - 7. Reputation in relevant community
 - 8. Format - actual print style, communications &

comments published

9. Charges to author (eg color plates, photographs, reprints)

10. Construction of tables, charts, graphs, figures legends etc.

11. Journals can promote open data, materials, and code

B. Prestige

C. Rank article & journal by number of times journal cited

D. Size of discipline exclusive of impact factor and times journal cited

E. Top tier vs lower tier journal

F. Publishing is a business for profit

G. Paper vs online (electronic)

H. Predatory journals (sham scientific journals)

1. "Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices." Sibrandes Poppema, Citations Are the Currency of Science, *The Scientist*, Dec. 1, 2020, p. _, <https://www.the-scientist.com/critic-at-large/citations-are-the-currency-of-science-68204>

- FTC hits predatory scientific publisher with a \$50 million fine, John Timer, *ARSTechnica*, April 2, 2019; <https://arstechnica.com/science/2019/04/ftc-hits-predatory-scientific-publisher-with-a-50-million-fine/>; <https://www.the-scientist.com/news-opinion/omics-international-fined-over-50-million-for-deceptive-practices-65698>

I. Pay to publish & author fees

1. Vanity presses - author pays for publishing services, editing and design to have work published

. Equivalent of "Bialystock & Bloom" from Mel Brooks' *The Producers* – they can make as much money from a flop as they can from a hit

2. Charge authors a fee to make their article open access

- Chin, Jason and Ribeiro, Gianni and Rairden, Alicia, *Open Forensic Science* (May 21, 2019). *Journal of Law and the Biosciences*, p.1,38 (2019). Available at SSRN: <https://ssrn.com/abstract=3391793>

3. Purchase authorship

- Russian website reportedly selling science article authorships, Bob Yirka, *Phys.org*, <https://phys.org/news/2019-07-russian-website-reportedly-science-article.html> (accessed July 22, 2019); <https://retractionwatch.com/2019/07/18/exclusive-russian-site-says-it-has-brokered-authorships-for-more-than-10000-researchers/#more-103383> (accessed July 22, 2019)

J. Beware of hidden charges

1. An introductory invitation may state that there is no charge for submission, but what is the charge for publication?

K. Beware of journals that send you emails soliciting an article

1. Ask why is the journal soliciting articles

X. Publication Criteria

A. Subject matter

1. New, novel, unique, innovative
2. Significance and germane to field

. Confirmation is important if topic contains important new data

3. Scope, useful, practical

4. Different perspectives to existing field of knowledge
 5. Quality of work
- B. Length of manuscript
1. Large manuscripts submitted as shorter articles
- C. Readability
- D. Understandable
- E. Experimental design & scientific method
- F. Viable
- G. Validity
- H. Errors
- I. Supported statements and conclusions
- J. Strength and credibility of article in experimental design and citations

XI. Experimental Design

- A. Topic criteria: new, novel or unique
- B. Basis for endeavor
- C. Fatal flaws

XII. Composition

- A. Language, Style & Grammar
1. Third person, past tense
 2. Designated language (English, German, Spanish etc.)
- B. Writing style
1. Follow journal's guidelines, correct spelling and punctuation for the journal
 2. No narratives

3. Concisely and coherently presented

C. Documentation

1. Extensive
2. Methodical review
3. Historical rendition
4. Defines & supports objectives and purpose
5. Illustrates resources
6. Attribution
7. Credibility and integrity of article

XIII. Publication Content - Basic Structure

A. Authorship - Duties

1. Elements (contribution, content responsibility, concept, design, data analysis and interpretation)
2. Drafting
3. Review
4. Editing & approval
5. Ensure work is original
 - not been previously published
 - not submitted for publication elsewhere
6. Order of authorship determined by credit and responsibility for the work

B. Basic standard laboratory report format

1. Objective, materials, procedure, methodology, results, discussion, conclusion

C. Title

1. Simple, specific, descriptive, concise, informative and understandable

2. Short or abbreviated title is usually best title
3. Working title and abstract assist in defining content, experimental design and scientific method
4. Title and abstract provide first impression of publication

D. Abstract (Article)

1. Concise and precise self-contained conceptual summation overview, objective, results, principles and conclusion with most important information

- clear concise and precise summary of a particular subject the (research article, thesis, review, proceeding) used to ascertain the article's purpose

- contains

- . background context, problem, objective, main hypothesis & argument
- . methodology, procedure
- . results
- . conclusion and implications

- uses key words & phrases

- describes larger work

2. 100 to 250 words

3. Single paragraph

E. Introduction

1. Basis, purpose and rationale for article
2. Nominal background
3. Seminal references

F. Methods & Procedures

1. Experimental
2. Equipment, instrumentation, reagents & apparatus

3. Describe how research actually performed to provide reproducibility (e.g. cookbook standards and approach)
4. Detailed description new methods or modified methods and procedures
5. Complete and correct method description
6. Statistical design and methods
7. Limitations on equipment, methods and procedures
8. Manufacturer's name and address of items employed in research and experimentation
9. Compliance with animal and human subject experimentation research standards
10. Selection criteria for animal and human subjects
11. Maintain human subject anonymity (do not use or identify human subjects by name, social security number, hospital number, driver's license number etc.)

F. Results & Claims

1. Entire paper organized around data and appropriate statistical analysis
 - data is not self-explanatory
 - present and explain data through an interesting perspective
 - use numerals for numbers
2. Verifiable and reproducible
3. Present collected data from experiment & study
4. Protecting integrity of the data is of critical importance
5. Editorial policy requiring authors to make their full raw data available, subject to "truly exceptional circumstances."
 - Marcia McNutt, Taking up TOP, 352(6290) SCIENCE 1147 (2016); Science, Science Journals: Editorial Policies, <https://www.sciencemag.org/authors/sciencejournals>

-editorial-policies (accessed 2019) [Science Editorial Policy]; The Royal Society, Data sharing and mining, <https://royalsociety.org/journals/ethics/policies/data-sharing-mining/> (accessed 2019).

6. Use graphs, charts, tables, figures and photographs
7. Use symbols, not colors, in charts and graphs
8. Present in logical sequence
9. Summarize important observations and results
10. Do not repeat what is stated in figures, graphs, charts etc.

G. Statistics

1. Criteria
2. Reproducibility
3. Uncertainty
4. Error analysis (forensic metrology)
5. Confidence intervals
6. Do not avoid or minimize statistics

H. Discussion

1. Theory guides, facts control
2. Scientific method (procedures, questions, hypothesis, observations, analysis and conclusion)
3. State basic constructs of subject matter in paper
4. Explain findings & data
5. New & important aspects
6. Implications and limitations
7. Future research implications

8. Comparison to relevant studies & literature
9. Conclusions with objectives, hypothesis of study
10. Supported by data
11. Recommendations
12. Never make unqualified statements, no speculation, no conjecture
13. Learn more from failure than success

I. Conclusion

- brief summation of what actually found and proved

J. Acknowledgments

1. Recognize and thank contributors
2. Research or preparation supporting contribution (not authorship)
3. Technical assistance
4. Financial or material assistance, nature of support
5. Disclose potential conflicts of interest (financial relationships)
6. Intellectual contribution or assistance (named person and function e.g. academic advisor, scientific advisor, reference librarian)
7. Written permission of named persons to avoid inferences of endorsement (data, results conclusions)

K. References citations, endnotes and footnotes

1. Number consecutively in order of appearance in text
2. Must be correct, complete and current
 - verify all citations
 - cannot be incomplete, inaccurate, spurious, biased, taken out of context

- Gil Sapir, NSC-CAOD's Source Code Resolution: Ethical Improprieties, Political Bias, Legal Misrepresentations, Scientific "Balderdash," Drinking Driving Law Letter, Jan., 2010, vol.29, no.1, p.1.

3. Follow journal format and guidelines

4. Vetted, checked and read by reviewers

5. References add credibility to the article but do not make it credible

. references and proper citations potentially create or destroy the article's credibility

L. Reference to article during pending publication period is cited as "in press" or "publication pending"

M. Key words

1. Subject terms

2. Use 3 to 4 simple descriptive words of article's content and subject matter

XIV. Writing & Composition

A. Conclusion

1. Write it first - working draft

2. Several sentences to focus thoughts & design

B. Abstract

1. Concise conceptual summation overview, objective, results, principles and conclusion

2. 100 to 250 words

C. Extensive literature review

1. A thorough literature review is essential before starting

2. Consult and use reference librarian

D. Attribution

- E. No assumptions
 - 1. Reader's knowledge of subject matter
 - 2. Address basic fundamental constructs of topic
 - 3. Abbreviations, acronyms and word forms must be listed and explained
- F. Graphs and charts - visual effects, print figures & graphs with legends (readable & legible)
- G. Compose and present in third person format

XV. Manuscript Format

- A. Comply with journal's guidelines and instructions to authors including format and submission procedures
- B. Illustrations, charts, graphs, tables are to be complete, clear, self-contained and must comply with journal's format
- B. References & citations
- C. Footnotes/Endnotes
- D. Citation format
 - 1. Traditional (author, title, publication, volume, number, page, year)
 - 2. Electronic (internet and website)
 - 3. Use both traditional and internet citations
- E. Publisher performs the type setting

XVI. Review Process (peer review)

- A. Informal peer review (publishing editor)
 - 1. Person without topic subject matter knowledge
 - 2. Person with subject matter knowledge
- B. Do not simplify, dilute or "dummy down" the article
 - 1. Compose and write article at educational level of

audience

2. Article must be clear, cogent and concise

C. Edit to increase communication and understanding of subject

D. Time process 6 months review from submission

E. Publication 3 to 6 months after final draft accepted

XVII. Editor-in-Chief

A. Duties & Responsibilities

1. Article within subject matter of journal

a. Business decision, not quality of ideas or subject matter

2. Responsible for quality and content

3. Scholarly content and advancement of knowledge

4. Oversees review process (impartiality, fair, timely)

5. Assigns guest editors for special issues

6. Assigns reviewers for manuscripts in peer review process, normally 3 reviewers (referees) to reflect relevant expertise, diversity, and geographical backgrounds

7. Relies on opinions, commentary and recommendations of experts and reviewers for peer reviewers

8. Conducts initial review for plagiarism and intellectual misconduct or dishonesty

9. Makes final decisions for journal, textbook & chapters

10. Accepts or rejects articles

11. Edits or reviews drafts as needed

12. Maintains correspondence with designated author

13. Maintains confidentiality of submissions,
communication with authors and details of peer review

B. Disclosed conflicts of interest

1. Financial - editors seldom disclose their financial
conflicts of interest to industry

- Sabine Galvis, Medical journal editors expect
authors to disclose conflicts of interest - but
don't disclose their own, July 26, 2019,
<https://www.sciencemag.org/news/2019/07/medical-journal-editors-expect-authors-disclose-conflicts-interest-don-t-disclose-their?> (accessed July 30,
2019)

- Rafael Dal-Ré1, Arthur L Caplan, Ana Marusic,
Editors' and authors' individual conflicts of
interest disclosure and journal transparency. A
cross-sectional study of high-impact medical
specialty journals, BMJ Open, June, 2019 vol.9,
no.7,
<https://bmjopen.bmj.com/content/9/7/e029796.full>
(accessed July 30, 2019)

2. Personal

XVIII. Reviewer (referees)

A. Referees selected by journal's editor-in-chief

B. Journals (editor) provide reviewers with instructions for
content and format

C. Author discloses conflicts of interest or knowledge, if
any, with potential referees; referees discloses
conflicts interests

D. Impartial and knowledgeable in subject matter and field

1. Learned and developed expertise through their
academic training and career

2. Evaluate techniques, soundness of significance,
technical quality, integrity of content and conduct

E. Expect 3 to 5 review cycles per manuscript with editor-
in-chief as final decision maker

- F. Not normally identified, disclosed, and maintains anonymity
1. Only identified in lawsuits, ethics complaint and ethics proceedings
- G. Objectives
1. Validity of methods, conclusions, errors and other inadequacies (textual, content, subject, supporting documentation etc.)
- H. Comments
1. Recommendations, advice and comments to improve manuscripts through critique of analysis
 2. Accept, minor/major revision, conditions of acceptance, reject manuscript, decline without review
 3. Comments are sent to the authors anonymously
- I. Checks and reads references
- J. If reviewer rejects article, reviewer provides detailed, substantive comments and basis for rejection
- K. Well-documented biases. Systemic biases directly effect the outcome of peer review. Unprofessional peer reviews are pervasive and disproportionately harm under represented or marginalized groups in science, technology, engineering, and mathematics (STEM) fields. These groups were most likely to report direct negative effects on their scientific aptitude, productivity and career advancement after receiving an unprofessional peer review.
- Silbiger NJ, Stubler AD. 2019. Unprofessional peer reviews disproportionately harm under represented groups in STEM. *PeerJ* 7:e8247 <https://doi.org/10.7717/peerj.8247> (accessed Dec. 30, 2019)
- L. Too often the reviewer that doesn't read the journal's manuscript for evaluation, yet offers condescending or outright offensive comments and urges the irrelevant citation of their own work.
- Christie Wilcox, Rude paper reviews are

pervasive and sometimes harmful, study finds, Dec. 12, 2019, *Scientific Community*, doi:10.1126/science.aba5502 (accessed Dec. 30, 2019)

- M. Ghost writing and co-review by non-invited reviewers violate professional ethics and contractual obligations. (e.g. graduate students, post doctorate students or junior scientists in the laboratory or research groups)

XIX. Plagiarism & Intellectual Misconduct/Dishonesty

Scientific fraud includes completely made-up data, massaged or doctored figures, multiple publications of the same data, theft of complete articles, plagiarism of text, and self-plagiarism.

- A. Taking another's images, ideas, words, phrases, images and representing them without permission or as their own. It includes copyrights, trademarks, patents, digital media and other forms of intellectual property rights.

- B. No excuse for piracy and intellectual theft - fabrication, falsification or plagiarism

- C. Research misconduct encompasses plagiarism, fabrication and falsification

- D. Plagiarism detection software

- 1. Types - e.g. "Ithenticate," "Turnitin" or "WriteCheck"

- 2. Plagiarism is a complex issue ... although tools to identify text duplication are an invaluable resource for routine screening, they should not be used in lieu of a human reviewer.

- Diana Kwon, Journals' Plagiarism Detectors May Flag Papers in Error, *The Scientist*, June 25, 2019;
<https://www.the-scientist.com/news-opinion/journals-plagiarism-detectors-may-flag-papers-in-error--66043> (accessed June 26, 2019)

- E. Upon initial acceptance it is screened

- F. Block type quotes and indent or use quotation marks to

avoid confusion and allegations of impropriety

G. Word, phrases and cliches

H. Types (maximum acceptance policy)

1. Maximum 50 words with quotation marks (generally)

2. Maximum 400 words text paragraphs with quotation marks (generally)

I. Respect and cite copyrights & trademarks

1. Do not reproduce illustrations & photographs without written citations and attribution

J. Public domain

1. Government and federal publications

K. "Fair Use" Doctrine

L. Self plagiarism

1. Not unusual

2. Multiple papers on same topic by same author

3. Judgement call by reviewer and publisher

M. Author misconduct & accountability

1. The first author should be responsible for ensuring the integrity of a scientific paper's content even though they are more likely to act inappropriately than middle authors.

- Katrin Hussinger and Maikel Pellens, (2019)
Scientific misconduct and accountability in teams.
PloS ONE, 14(5): e0215962.
<https://doi.org/10.1371/journal.pone.0215962>
(accessed May 17, 2019)

2. All authors are collectively responsible and accountable for criticisms and concerns of the publication

3. All authors should review article manuscript before submission to publisher and final proof before actual

publication

N. Citation manipulation

1. Citations are the currency of science
2. Artificially boost or inflate number of citations to a specific work
3. Contributors to add citations to their article, articles of colleagues and conference proceedings
4. Regardless of relationship between the contents and citation
5. Generate and direct citations

O. Gaming peer review

1. It is a violation of publishing ethics to use the peer review comments of one journal to mature a manuscript and submit to another with a higher impact factor.

- Jens P. Goetze and Jens F. Rehfeld, Opinion: Stop Gaming Peer Review, *The Scientist*, June 6, 2019;
<https://www.the-scientist.com/news-opinion/opinion--stop-gaming-peer-review-65975> (accessed June 6, 2019)

P. Manuscript editing services

1. Disclose all writing and editing assistance and acknowledge the assistance.

- A Helping Hand, Karen Kaplan, *Nature*, Dec. 2, 2010, vol.468, p.721;
<https://www.nature.com/naturejobs/science/articles/10.1038/nj7324-721a>

Q. A lawsuit is the worst form of peer review

1. Lawsuits generally encompass misrepresentations which includes: plagiarism, copyright infringement, falsification of data/information, duplication, misconduct, exaggeration etc.

- John Bohannon, "Hoax Detecting Software Spots Fake Papers." *Science*, 348, no.6230(2015):18-9; John Bohannon, "Who's Afraid of Peer Review?," *Science*, 2015, 342, no.6154(2015):60-65; David M. Markowitz and Jeffery T. Hancock, "Linguistic Obfuscation in Fraudulent Science," *Jorn. Language and Social Psychology*, 2015, DOI: 10.1177/0261927X15614605

- David L. Faigman, "Putting Scientific Peer review in the Courtroom," www.scientificamerican.com/article/putting-scientific-peer-review-in-the-courtroom (Dec. 18, 2015); "No Paper? No Problem," *Science*, 357, no. 6357 (2017):1218.

XX. Article Quality - Factors

- A. Experimental design & scientific methods
- B. Data
- C. Graphs, charts, tables, photographs etc.
- D. References & citations
 - 1. Seminal, complete, current & verifiable
- E. Accuracy, precision and clarity of presentation
- F. Balanced presentation with contrary evidence
- G. Title and abstract
- H. Competency and integrity of author

XXI. Attribution

- A. When it doubt, cite it
- B. Never too many citations
 - 1. Cite to avoid plagiarism
- C. Quality of article determined by citations and references

XXII. Authors - Who Deserves Credit

A. Criteria for authorship

1. Primarily conducts the work and writes the article, chapter, book etc.
2. Made creative substantive contribution to the new, novel or unique ideas, design, content and words being presented in the publication
3. Takes credit and responsibility for article's contents

B. Criteria for co-authorship

1. Ranking or order of co-authors
2. Contributed to the concept, design, execution, or interpretation
3. Made "substantial" or "significant" contribution is ambiguous
4. No 'honorary authors' or 'guest authors' - those whose names are added out of courtesy but who have not contributed significantly.

C. Criteria of contributors

1. Generally: preparing materials, operating equipment using standard methods; performing routine statistical tests or analysis without interpretation; reviewing, proofreading, or editing of manuscript; and supervising worker; obtaining grants or financial resources for the project.

D. Criteria for acknowledgments

1. Recognition essential work, services or support

E. Corresponding author publication

F. Misrepresenting authorship

1. Author inflation to build or enhance curriculum vitae or resumes

G. Authorship issue: Authors should disclose all writing and

editing assistance and acknowledge the assistance in their paper (manuscript editing services).

XXIII. Manuscript Preparation (common sense)

- A. Prepare and use simple cursory outline, general then expanded, then specific, then evolve into paragraphs for draft manuscript and organization of material
- B. Prepare and write manuscript in sections - not beginning to end
 - 1. Do not attempt to write and edit at same time - both will suffer and not be performed competently
 - 2. Editing is easier than writing
- C. Title changes with evolution of manuscript
 - 1. Working title evolves into final title
 - usually last finalized aspect and item of paper
- D. Use correct vocabulary and terminology, no slang, no cliches, no colloquialisms, no jargon, no lingo etc.
 - 1. Avoid discipline-specific jargon in the title, less than 2% of the text in the abstract; jargon-heavy papers are cited far less often.
 - Martínez Alejandro and Mammola Stefano 2021, Specialized terminology reduces the number of citations of scientific papers, Proc. R. Soc. B.2882020258120202581, <http://doi.org/10.1098/rspb.2020.2581> (accessed April 8, 2021)
 - Katie Langin, Want other scientists to cite you? Drop the jargon, Science Magazine, Apr. 6, 2021, www.sciencemag.org/news/latest-news, doi:10.1126/science.caredit.abi8836 (accessed April 8, 2021)
 - 2. Abbreviations, acronyms and word forms must be listed and explained
 - . Acronyms hinder understanding and contribute to the increasing fragmentation of science. Acronyms adversely effect clarity in writing through

ambiguities, misunderstandings and inefficiencies.

- Adrian Barnett and Zoe Doubleday, The growth of acronyms in the scientific literature. *Elife*. 2020 Jul 23;9:e60080. doi: 10.7554/eLife.60080. PMID: 32701448; PMCID: PMC7556863.(accessed April 8, 2021)

2. Use standard system for numbers and nomenclature

3. Use numerals for numbers

E. Proof reading and cite check for typographical errors, grammar, punctuation, spelling etc.

1. Proof read manuscript backwards, bottom of last page to top of first page

F. Mechanics of writing

1. Prepare and use an outline to organize thoughts and components

2. Use spell checker

3. Number all pages

4. Topic and sub-topic headings

5. Creating endnote/head notes word processing

6. Keep internal citations references accurate (e.g. *supra*, *infra*)

7. Use 12 point font

8. Short simple sentences

9. Correct terminology, not a novel, not a social statement

G. Initial editing and proof reading

1. Number all paragraphs consecutively in entire article

2. Number all lines consecutively in entire article

H. One graph, chart, illustration, photograph per page

- I. Date and number all drafts
- J. Do not write over or edit drafts
- K. Must preserve historical rendition for back checking
- L. Read drafts on paper, not computer screen which is a distortion
- M. Keep printed copies of all drafts
- N. Save manuscripts to hard drive and external storage device
- O. Keep pen & paper available at all times - record random thoughts as they occur or will forget them
- P. Manuscript informally reviewed by person knowledge in science but not the manuscript's topic or subject matter (cross discipline approach)
 - 1. Use 2 different people or colleagues to review and proof read manuscript before submitting it for publication
 - 2. Review for science, logic, language, style
 - 3. Revise and address comments and concerns
- Q. Create and incorporate citations while writing
- R. Verify citations
- S. Do not expect the editor or reviewers to repair a poor quality manuscript

XXIV. Submitting Article

- A. Cover letter to journal/book editor-in-chief
 - 1. Single page in length
 - 2. Submitting titled manuscript for publication in their journal
 - 3. Indicates subject and content of manuscript
 - 4. Manuscript submitted electronically and with print

copy by U.S. Mail

5. Identify corresponding author

6. Date the letter

7. Sign the letter

8. Enclose current curriculum vitae of authors

B. Curriculum vitae of authors

1. Subliminal reflection on author

2. Implies credibility of author

3. Implies credibility of proposed manuscript

C. Designate one primary corresponding author

D. Date the manuscript

E. Follow journal guidelines & procedures

F. Clear legible graphs, charts, photographs figures etc.

G. Captions typed separately for each illustration

H. Specific electronic format and software compatibility

I. Printed/hard copy manuscript with electronic copy

J. Written permission for previously published material

K. Editor-in-Chief distributes article to reviewers

L. Submit to only one journal at a time

M. Never submit manuscript to multiple journals
simultaneously during active consideration period

N. When in doubt, ask editor-in-chief for publishing
guidance - not content

XXV. Revisions

A. Most papers not accepted on initial submission

1. Expect 4 to 5 revision cycles from referees

2. Resubmit revised manuscript addressing recommended alterations and changes

3. Send cover letter to editor-in-chief with revised manuscript stating made requested revisions and to proceed with the publication process

B. Alterations

1. Major - logic, design, structure

2. Style - refine text, correct grammar & spelling

3. Format - readability

C. Follow advice and comments of reviewers

1. If author disagrees with reviewer's recommendation, author should respond in writing to each point separately, item by item

2. If author agrees with reviewer's recommendation, author should acknowledge and describe in writing the change

D. Do not take critiques personally

E. Respond to reviews and comments when asked or manuscript is rejected

F. Revisions not received by editor-in-chief within specified time period then manuscript is rejected

XXVI. Rejected Publication - Fatal Flaws

A. Author conduct

1. Vanity, ego and self-promotion

2. Inability to accept criticism

3. Refusal to change and adapt manuscript

4. Whining, complaining, bragging, exaggeration, excuses

5. Non-responsive

B. Experimental design

- C. Plagiarism or intellectual dishonesty
- D. Content
 - 1. Submitted to wrong journal
 - 2. Inappropriate, incomplete, or insufficiently described statistics
 - 3. Over interpretation of results or skewed data
 - 4. Use of inappropriate, insufficient populations or instruments
 - 5. Insufficient or biased samples
 - 6. Poorly written or difficult to follow text
 - 7. Quality of work
- D. Non-compliance with reviewer recommendations
- E. Non-compliance with published guidelines
- F. Not following instructions
- G. Deadline non-compliance
- H. Defective references & citations
- I. Fabricated references & citations
- J. Simultaneous submissions to multiple publications
- K. Distribution, dissemination or release of article before actually published

XXVII. Accepted Article

- A. Process takes several months
- B. Editor-in-Chief notifies primary corresponding author
- C. Signature of primary author acknowledging permission of co-authors and principles
- D. Author corresponds with editor-in-chief
- E. Author makes necessary changes

- F. Editor-in-chief sends article to publisher
- G. Article is edited for publication
 - 1. Production and copy editor responsibility
 - 2. Style and format
 - 3. Copy edited
- H. Page proof (galley proof) returned to author for review
- I. Review page proofs very carefully
 - 1. Correct typographical & factual errors
 - 2. Review for clarity, legibility and readability
 - 3. Shades and color of print ink
 - 4. Last opportunity to make corrections before publication
- J. Read page proofs on paper, not computer screen which is a distortion
- K. Acknowledgment and thank you letter from editor-in-chief
- L. Prospective publication date
- M. Reprint orders
 - 1. Order reprints for personal distribution and posterity
- N. Citation in resume
 - 1. Formal citation with statement "publication pending" or "in press" contained in parenthesis

XXVIII. Publisher

- A. Publishers are in business to make money at expense of authors and reading public
- B. Textbooks/Book Chapters
 - 1. Contracts

- Constructed and written to favor publisher
- Adhesion format (take it or leave it)
- Author relinquishes intellectual property rights
 - . death converter clause
 - . publisher can or cannot assume authorship or change authors on later editions
 - . publisher can or cannot change content

2. Endemic problems in publishing

- Outsourcing work to India and Philippines
 - . not stated in contract
 - . problems with English language
 - . do not understand subject matter & content
- Deceptive contractual practices
- Incompetency of editing and publishing process
- Conflicts of interest with reviewers
- Cite checking only to format not content
- Limitations - minimal work
- Reduce overhead costs
- Readability
 - . low quality paper
 - . paperback editions (not hardcover)
 - . reduce type font size
 - . light ink color to reduce costs
- Transition in electronic platforms
 - . evolution from print to digital media (e-books, audio books, and other products)

XXIX. Authorship - Legal Aspects

A. Read and understand publishing contract

Education is when you read the fine print. Experience is what you get if you don't. - Pete Seeger

- B. No such item as a "standard contract"
 - 1. Publisher uses an adhesion contract
- C. Attorney review contract (forever regret not doing so)
- D. Retain authorship and copyright
 - 1. Review legal rights
 - 2. Everything is negotiable (entire contract)
- E. Do not assign or relinquish authorship to publisher
 - 1. Common sense over enthusiasm
- F. Reduce all correspondences, issues, agreements (everything) to writing to protect authorship and rights
- G. General contract for book with primary author
 - 1. Separate subcontracts with each chapter author
- H. Reprints
 - 1. Number of courtesy copies is negotiable
 - 2. Both author and co-authors each get courtesy copy of the journal and book
- I. Current resume/curriculum vitae for submission with article

XXX. Ethics

- A. Ethics and integrity are paramount
- B. Qualified vs. Competent
 - 1. No ghost or guest authors
- C. Identify conflicts
 - 1. Funding sources
 - 2. Professional and personal relationships

- D. Non-disclosure of flaws in research hidden to increase chance of publication and claims of significance
 - 1. Secrets are not part of research
 - 2. If want to preserve trade secrets do not submit article for publication
- E. All authors must agree to changes in the manuscript
- F. No vendettas, no defamation, no derogatory comments, no disparaging words, no character assassination
- G. Conclusions independently validated requires openness, honesty and integrity
- H. Never know when and where the article will be used, by whom and in what context

Disclaimer

This outline is intended to provide general information; it does not provide legal advice applicable to any specific matter and should not be relied upon for that purpose. Interested parties should review the laws with their legal counsel to determine how they will be affected by the laws.

Acknowledgment

Patrick Harding, "Preparing Scientific Articles: How To Write a Paper," IACT 2002 Conference, Austin, Texas

Resources

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