

# From Conception to Dissemination The Life Cycle of a Manuscript

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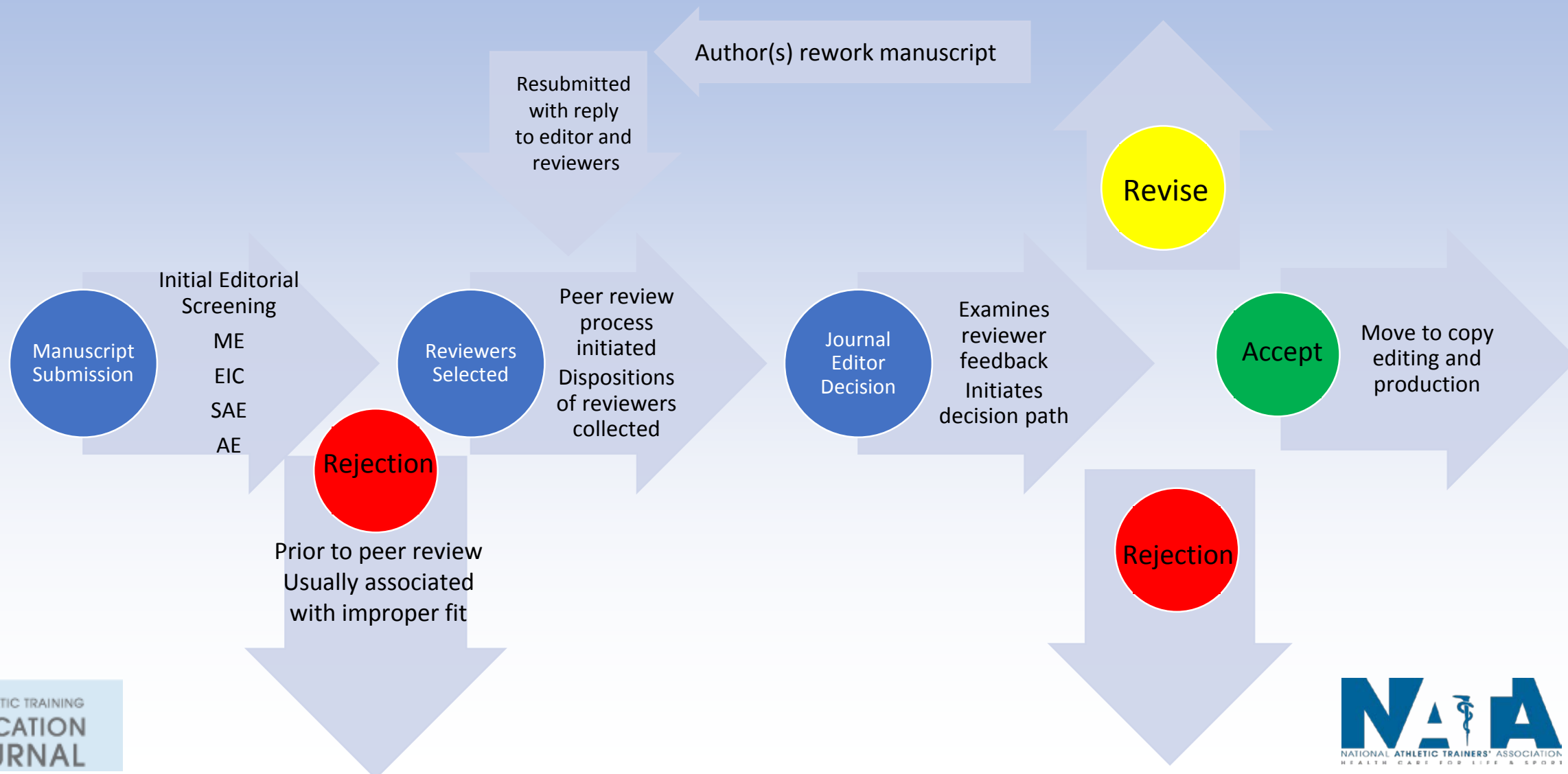
# Conflict of Interest

- Financial Disclosure
  - No relevant financial relationship(s) exist for any speaker.
  - No product or manufacture relationship(s) exist for any speaker.
- Statements, opinions and recommendations contained in this program are ours unless indicated.
- Views may not be the same as the views of our company's clients or our colleagues.
- Participants must use discretion and clinical reasoning when using the information contained in this presentation.

# Objectives

- Describe the language required to convey athletic training knowledge through the dissemination peer-reviewed journals and identify common roadblocks to publishing, and how to overcome them.
- Examine guidelines for potential authors on how to increase the chances of their manuscript being accepted and identify effective presentation components to position a paper for a positive editorial review, including the guidelines on key aspects of ethical publishing, peer review, journal indexing, and archiving.
- Examine the need for effective writing and communication of research results, highlighting the importance and reliability of the study.
- Discuss the basic and advanced knowledge and skills in biomedical writing, editing, and publishing under the close supervision of science editors.
- Train athletic training education and clinical writers and editors who will be ethical contributors of research publications.
- Promote international collaboration through joint local and international courses.

# Manuscript Lifecycle



# Factors associated with editorial decisions

• Inappropriate for the <i>ATEJ</i>	53%
• Insufficient educational importance	20%
• Inappropriate level of sophistication	14%
• Poor representation of design	12%
• Inadequate description of methods	12%
• Conclusions not justified from results	12%
• Not of interest to AT educators	10%
• Inadequate preparation of manuscript	10%
• Faulty conception or design	10%

# Roadblocks to publishing?

- Reasons editors and/or reviewers rejected a manuscript, it/it's...
  - fails technical screening
  - doesn't fall within the aims and scope of the journal
  - incomplete
  - has faulty or defective procedures and/or analysis
  - has a conclusion that cannot be justified on the basis of the results
  - simply a small extension of a different paper, often from the same authors
  - incomprehensible
  - too long and boring (see author guideline for length).

# The art of avoiding roadblocks...

1. Target journal to your manuscript
2. Present something new
3. Present a complete and WELL written manuscript
4. Engage in strategic referencing
5. Consider your language
6. Follow ethical guidelines





# The art of avoiding roadblocks...

## 1. Target the proper journal

- *JAT*
- *ATEJ*
- *ATSHC*
- *IJAHS*
- *AJSM*





# The art of avoiding roadblocks...

2. Present something new...



# The art of avoiding roadblocks...

## 3. Present a complete and well written manuscript

- Edit
- Edit
- Edit

14. Manuscripts should contain the following, organized in the order listed below, with each section beginning on a separate page:
  - a) Abstract (maximum of 300 words) and Key Words (3 to 5 words or terms that do not appear in the title)
  - b) Key points of manuscript
  - c) Text (body of manuscript)
  - d) References
  - e) Tables (each on a separate page)
  - f) Legends to figures
  - g) Figures (each on a separate page)

Conclusions, and Key Words.

**Qualitative Original Research** articles: Context, Objective, Design, Setting, Patients or Other Participants, Data Collection and Analysis, Results, Conclusions, and Key Words.

**Meta-Analysis and Systematic Review** articles: Objective,

# The art of avoiding roadblocks...

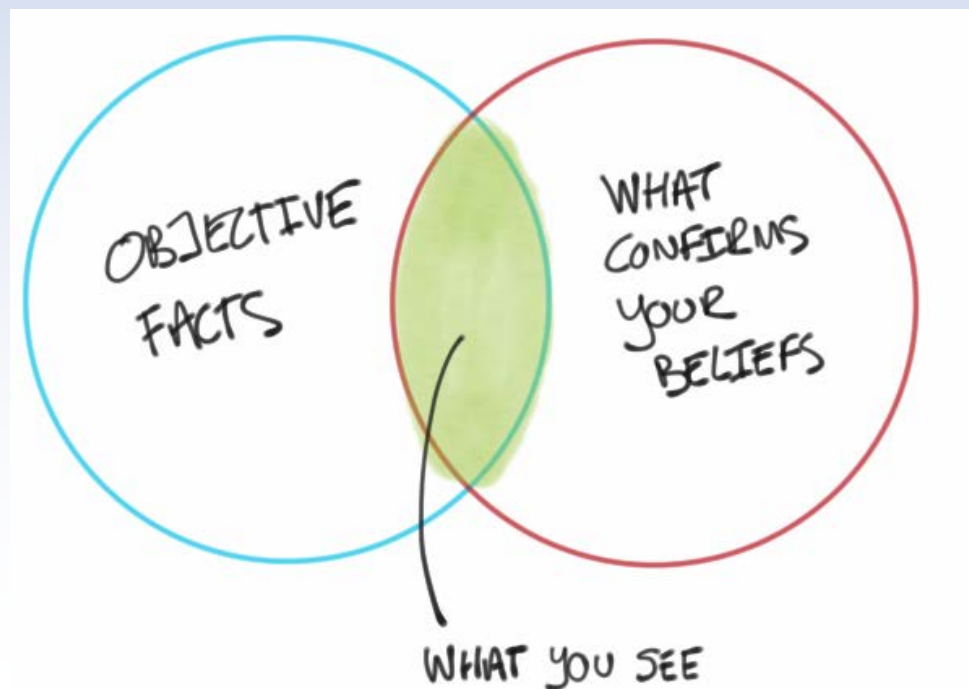
## 4. Engage in strategic (*correct!*) referencing...

- cite original and credible sources
- examine and, where possible, use widely cited sources
- cite studies from the journal to which you are submitting your work
- avoid excessive self-citations

# The art of avoiding roadblocks...

## 5. Language matters...

- your bias may be conveyed
- your arguments may be easy to disagree with



# The art of avoiding roadblocks...

- Being tentative is okay
  - *May* instead of *Can*
  - *Perhaps* instead of *Will*
- Acknowledge opposing viewpoints
- Avoid one-dimensional assertions about complex issues
- Use plain language



# The art of avoiding roadblocks...

## 6. Follow ethical guidelines and avoid publication misconduct...

- Plagiarism (*ATEJ*, *JAT* now scans)
- Duplicate submission
- Redundant publication
- Fraudulent data
  - [Retraction watch](#)
- Authorship, self citation

3. The *ATEJ* conforms to the International Committee of Medical Journal Editors “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” (<http://www.icmje.org/icmje-recommendations.pdf>). Each author must be specifically identified in the published manuscript, in accordance with these guidelines. Authorship credit should be based only on
- a) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;
  - b) drafting the article or revising it critically for important intellectual content; and
  - c) final approval of the version to be published.

# The art of avoiding roadblocks...

## Plagiarism

Folder: Report video documents

Jump to: The Differences Between Rep... - 50%

**iThenticate**  
Professional Plagiarism Prevention

**The Differences Between Reporting Modes**  
By: Mark Rickson  
As of: Tue May 29, 2012 03:06pm PDT  
401 words - 2 matches - 2 sources

Similarity Index  
**50%**

Mode: Similarity Report

Exclude Quotes Exclude Bibliography Exclude small matches

This document will help clarify the differences

between the iThenticate report viewing modes. There are 4 modes but only 3 of them display different views. The summary report and the similarity report are identical except for the fact that the summary report does not display sources side-by-side with the document and instead displays the matching sources above the document. The Similarity Report is the default mode in which to view an iThenticate report. The Similarity Report basically shows you the best matches to sources in our repositories for the document. Even if the matches may be the best matches our system identifies it does not by any means mean that they are the only sources found for those particular matches or that the whole source's matching text

1 123 words / 30% - Your Indexed Documents  
[Source A.docx](#)  
From: Tue May 29, 2012

2 82 words / 20% - Your Indexed Documents  
[Source B.docx](#)  
From: Tue May 29, 2012

52%

SIMILARITY INDEX

MATCHED SOURCE

1 **natajournals.org**  
Internet

1386 words — **27%**

★**natajournals.org**  
Internet

**27%**

EXCLUDE QUOTES OFF  
EXCLUDE BIBLIOGRAPHY ON

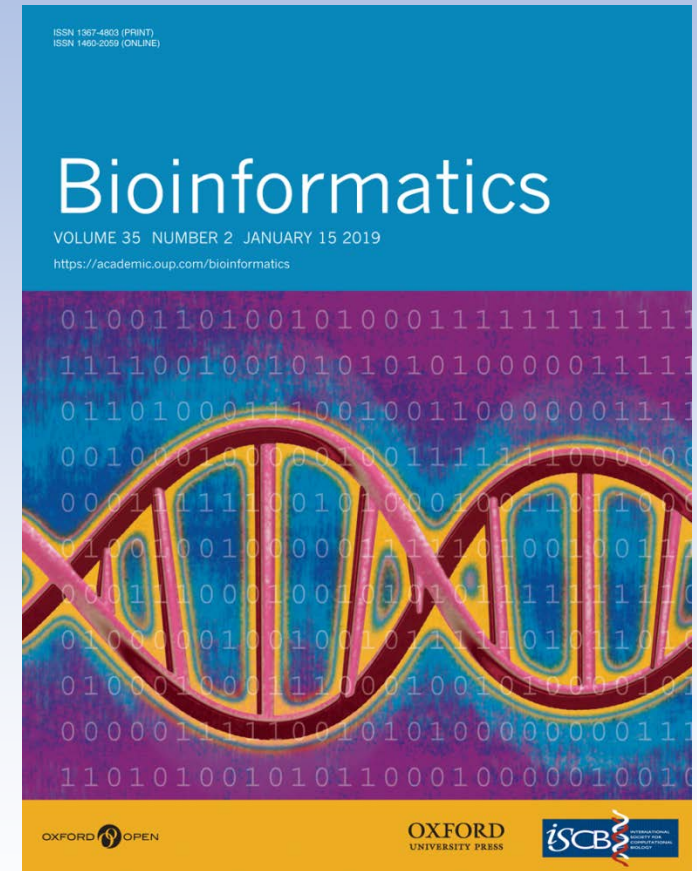
EXCLUDE MATCHES OFF



# The art of avoiding roadblocks...

*A case was recently brought to the journal's attention regarding a reviewer who had requested a large number of citations to their own papers as part of their review.*

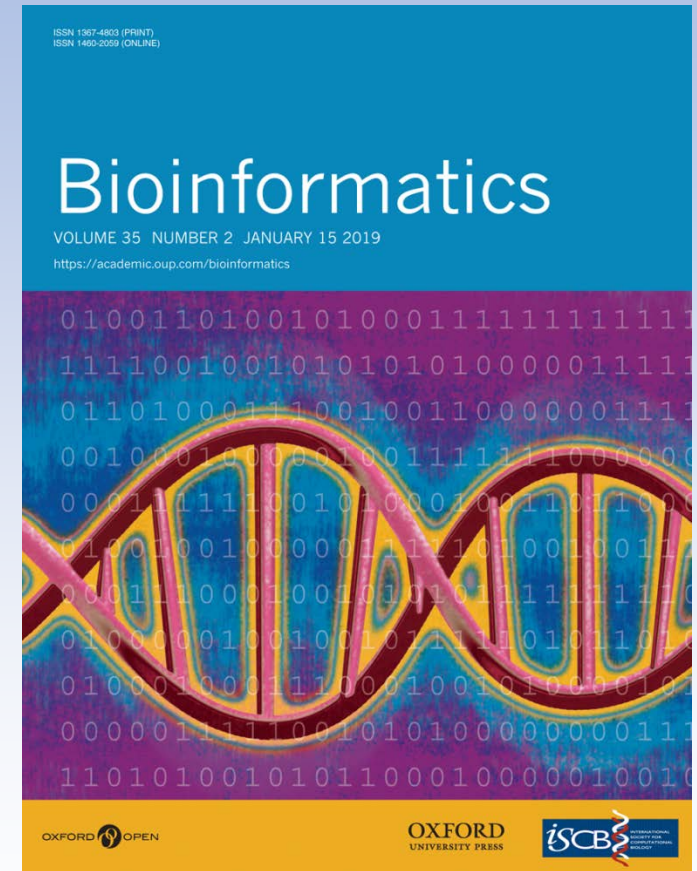
*After investigation of their most recent reviews, found that in every review this reviewer requested an **average of 35 citations be added**, approximately **90% of which were to their own papers** and 10% that cited them extensively and mentioned them by name in the title.*



# The art of avoiding roadblocks...

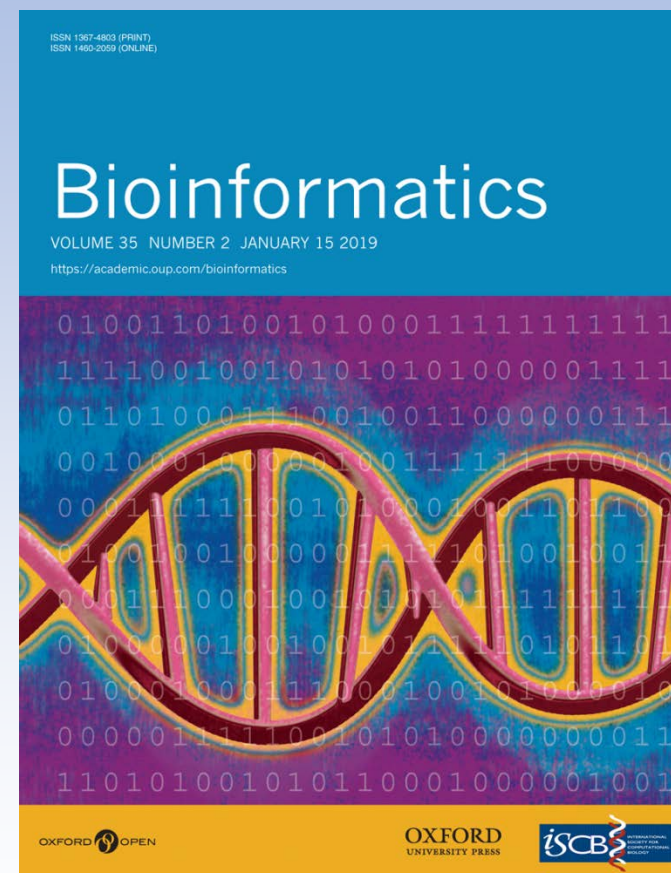
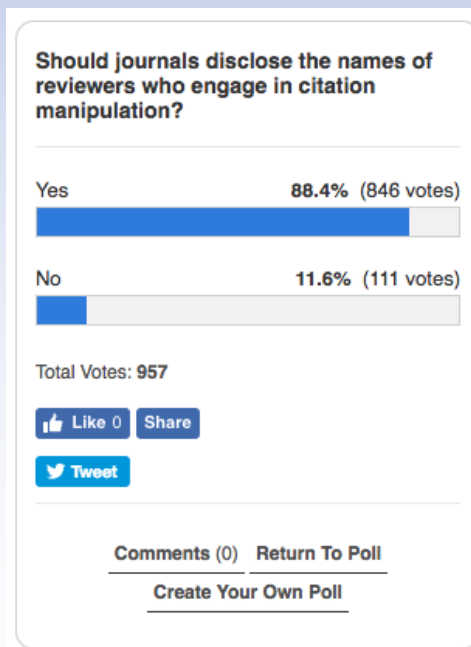
Question to you?

Should journals disclose the names of reviewers who engage in citation manipulation?



# The art of avoiding roadblocks...

Should journals disclose the names of reviewers who engage in citation manipulation?



<https://retractionwatch.com/2019/02/07/the-case-of-the-reviewer-who-said-cite-me-or-i-wont-recommend-acceptance-of-your-work/#more-85920>

# Effective communication

... transmitting the message **clearly** and **concisely** so it's understood!

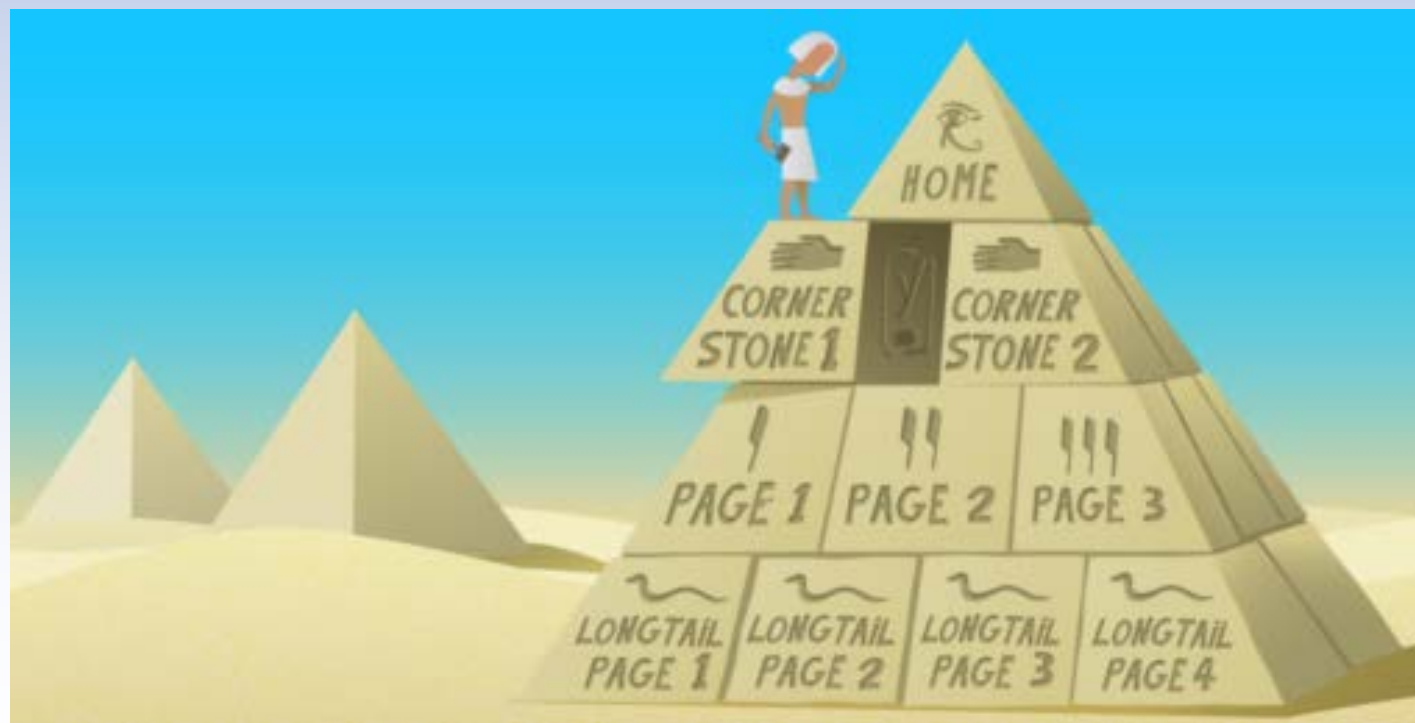
... **ENGAGING** the audience – it's about the '*So what?*' and '*Why does it matter?*' of the message.





# Effective communication

Effective scientific communication (written, oral), is the **CORNERSTONE** of successful research, yet formal instruction is **RARELY** provided.



# Effective communication

Cameron, et al explored **research trainees'** (n=43, postdoc and doctoral students) and **faculty mentors'** (n=50) *perceptions and practices regarding scientific communication skills development.*

# Effective communication

## Results

1. Trainees/mentors had **DIVERGING** views on the role of mentoring in fostering communication skills development.
2. Trainees expressed **interest** in learning scientific communication skills, but mentors reported that some trainees were insufficiently motivated and seemed resistant to guidance.
3. Trainees expressed varying levels of self-confidence, but **considerable angst**.
4. Mentors felt that most trainees had low self-confidence.
5. Both groups agreed that trainees found mentors' feedback difficult to accept.



# Effective communication

Trainees' <b>SELF-CONFIDENCE</b> in developing scientific communication skills	Trainees' <b>INTEREST</b> in developing scientific communication skills	Degree of <b>MENTORS' INVOLVEMENT</b> in teaching scientific communication skills
"My scientific writing is bad."	"My mentor wants me to do better in publications. There should be more pressure to write and speak more."	"[My mentor] is more content focused; not on writing skills."
<b>"I have received more attacks on my writing [than on my speaking]."</b>	"There should be more pressure to write and speak more. It is hard to focus because of research."	<i>"When I ask my mentor for feedback on my writing, I do not get a straight answer. I have no help with writing--I need help."</i>
"..depends on the audience. If the audience has a statistics background, then I'm OK; if they do not, or they have a biology or chemistry background, then I am not OK."	<b>"The environment isn't set up to work on things like that."</b>	<i>"I have no help with writing--I need help."</i>

# Effective communication

Across disciplines

Science is increasingly interdisciplinary and the ability to **communicate** more effectively across disciplines fosters collaboration and innovation.

Being able to communicate the relevance and impact of ideas and discoveries enhances one's ability to **SECURE** funding and educators' ability to teach.



# Effective communication

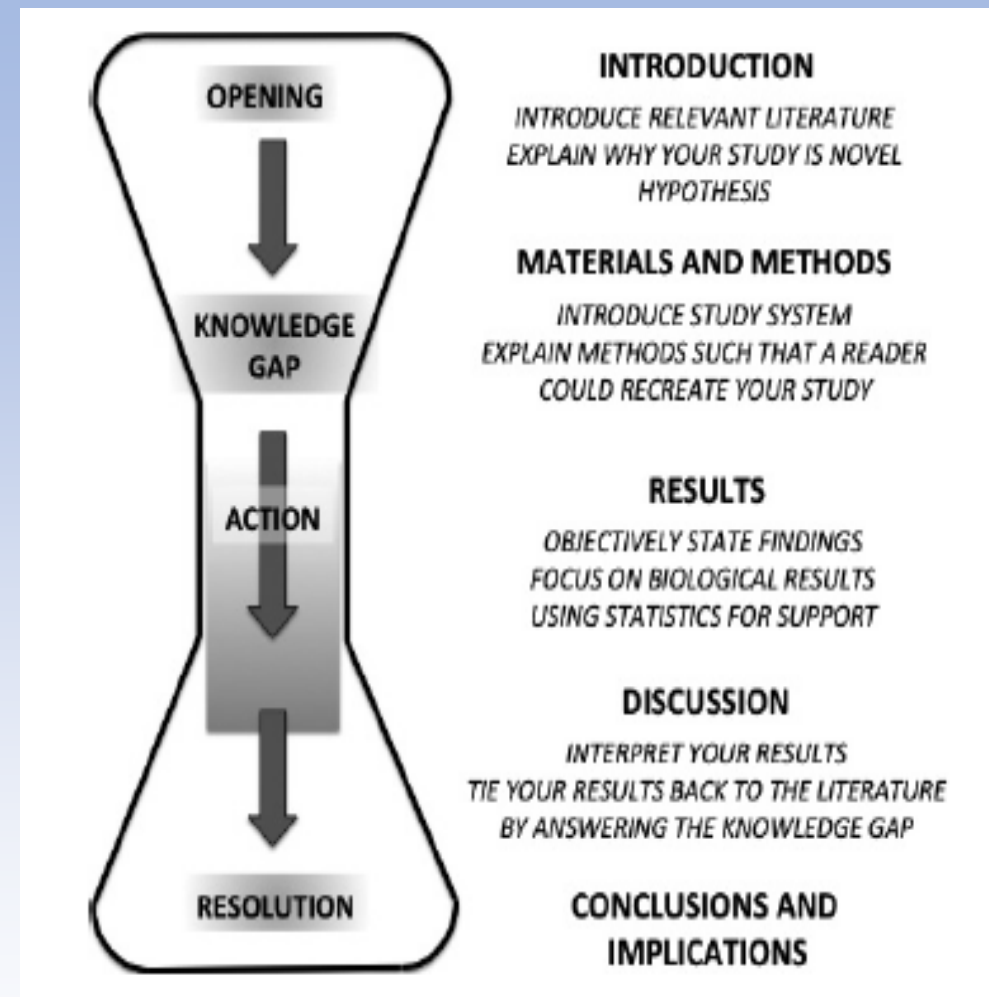
## Building Support

When you are able to communicate effectively beyond peers to broader, non-scientist/peer audiences, it builds support for science/education, promotes understanding of its wider relevance to society, and encourages more informed decision-making at all levels, from government to communities to individuals.

# Effective communication

## Framing a Paper

- Effective writing follows a format with key sections (see [author guidelines](#))
  - introduction to topic
  - hypotheses to be tested
  - description of methods
  - key results
  - discussion that ties results to the broader knowledge of the topic
  - limitations
  - conclusion/application



# Writing for publication in healthcare

- ✓ Select the right journal, know the AG
- ✓ Adhere to ethical principles
- ✓ Prepare the manuscript
- ✓ Avoid common mistakes

- 1. Journal metrics*
- 2. Discuss authorship*
- 3. See it from the reviewer's eyes*
- 4. Respond to the editor's and reviewers' reports*

## Criteria for Authorship

Who is on the list?  
In which order?



# Writing for publication in healthcare

Visualize the final product, ”...*what is the goal? Does we publish this type?*

Check the average time between submission of a manuscript, finalization of the review process and final acceptance and publication rate.

*Study the author’s guidelines, the journal’s requirements, and whether you need to discuss your idea with the editor first.*



# Writing for publication in healthcare

## Authorship



3. The *ATEJ* conforms to the International Committee of Medical Journal Editors “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” (<http://www.icmje.org/icmje-recommendations.pdf>). Each author must be specifically identified in the published manuscript, in accordance with these guidelines. Authorship credit should be based only on
  - a) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data;
  - b) drafting the article or revising it critically for important intellectual content; and
  - c) final approval of the version to be published.

International Committee of Medical Journal Editor (ICMJE) added a 4<sup>th</sup> criterion for authorship to emphasize **responsibilities** of each author to the design of work, interpretation of data, critical input to intellectual contents, revision of the final version, and being accountable for all aspects of work published ([http://www.icmje.org/ethical\\_1author.html](http://www.icmje.org/ethical_1author.html)).



# Writing for publication in healthcare

Authorship

## New Statement

*“Agreement to be ACCOUNTABLE for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.”*

# Writing for publication in healthcare

## Authorship

All authors of a paper should declare to the journal any potential COI in relation to the submitted work.

The International Committee of Medical Journal Editors developed an electronic uniform disclosure form in 2009.

Current version, [http://www.icmje.org/coi\\_instructions.html](http://www.icmje.org/coi_instructions.html)

# Writing for publication in healthcare

## Authorship

Authors should be aware of misconduct that could damage the researchers' reputations.

- Misconduct in relation to authorship includes...
  - Fabrication or falsification of data and results of a research paper.
  - **DUPLICATING** a manuscript.
  - Submitting the same manuscript to another journal at the same time.
  - Self-plagiarism (using sentences or paragraphs from one of the author's published work)
  - Plagiarism (using ideas, words or work of others without acknowledging their work).
  - Using a published method or a research protocol without giving credit to the original creator



Let's go behind the curtain...  
into the mind of an editor!

Writing for College	Writing for Journals
Requires robust language	Requires succinct language
Detailed Introduction (2 chapters)	Brief/Relevant Introduction
5 Chapters (*w/appendices)	6-8 headings
Address committee requirements	Address reviewer recommendations
Scholarship is encouraged	Scholarship is expected
Input is to improve product	Input is to find flaws
Recommendations are typically very specific and guided	Recommendations are typically general

# Writing for publication in healthcare



- Do not submit a manuscript **knowing it needs work...** and hoping the reviewers will do your work for you.
- Ask yourself... “what are the reasons a review might reject (or major revise) my manuscript?”



# Writing for publication in healthcare

## Common Mistakes When Submitting to Journals

Not following the journal's guidelines to authors.

Too long with redundant information.

Not written in **academic English** (below the standards of the journal).

Tables/figures are poorly designed. The findings in the tables are redundant.

Typological and grammatical errors.

Reference errors. 1) style, 2) citations not referenced, 3) citations are not current, 4) missing important references.

Methods used do not enable authors to answer the research question.

Faulty statistical methods and the results are over interpreted. Confounding factors were not carefully considered in the data interpretation.

The paper contains logical inconsistencies. (e.g., Leadership is ignored in AT lit. then cite 8 papers from AT lit.)

Current research findings are ignored (redundant research)



# Writing for publication in healthcare

## Peer Reviewer Questions to Consider

Is the research question original and well defined?

Is the data sound and well controlled?

Are the methods appropriate to allow the authors to answer the research question?

What are the strengths and **weaknesses** of the study? (are weaknesses addressed?)

Are the correct statistical methods used?

Are the interpretation of the results sound and have any biases or confounding factors been considered?

Does the **title** of the paper reflect the abstract, work done, and the overall conclusions?

Are the references cited **up-to-date** and a reflection of our **current knowledge**?

Are the tables and figures clearly presented AND easy to grasp?

# Writing for publication in healthcare

## Editor-in-Chief Questions

Does the work match the needs of the journal's readers and the journal's style?

Does the work match with the standards set by the journal?

Does the work help in the advancement of our knowledge?

What specifically does the paper add to what we already know?

What type of criticism is raised against the paper from reviewers?

Is there an ethical issue, conflict of interest or plagiarism?

# Write the methods!

Section answers the question, “*..how the problem was studied?*”

## New/Novel Design Method

If the paper is proposing a new method, include detailed information so a knowledgeable reader can reproduce the experiment.

## Established Method

However, do not repeat the details of established methods; use references and supporting materials to indicate the previously published procedures.

# Write the methods!

Reviewers criticize **incomplete** or **incorrect methods** and may suggest rejection.

Quantitative Trustworthiness	Qualitative Trustworthiness
Internal validity, external validity, reliability, and objectivity. Instrument validation and reliability. Sampling (size, power, convivence)	Credibility, transferability, dependability, and confirmability.

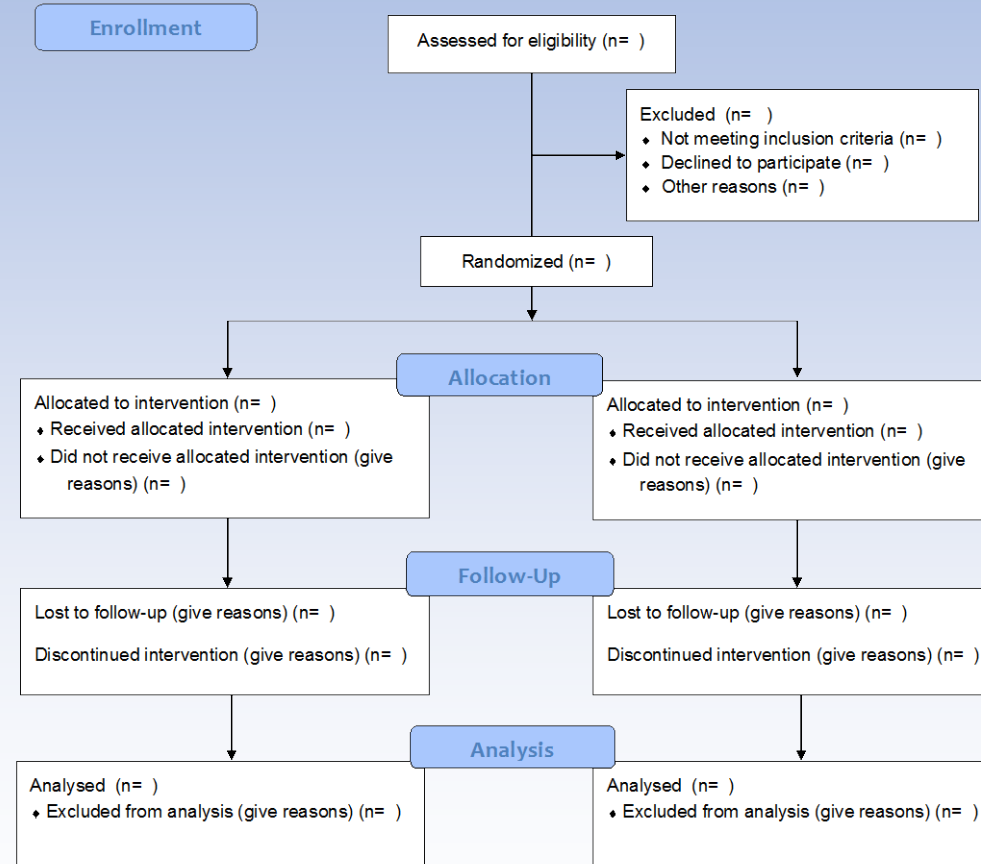
**Best practice tip:** Present a flowchart of the recruitment procedure and response of the subjects to interventions.

# Write the methods!

While mentioning these procedures, the *CONSORT statement* should be strictly followed for all the research studies.

Tip: It is better to write the result section after figures and tables are constructed and including them in the outline.

CONSORT 2010 Flow Diagram



# Write the methods!

## Essentials of Materials, Instruments, and Methods

Describe study design or analysis of study with respect to various variables and parameters

Study period or duration of study (starting and completion dates) and the place where it was conducted (primary, secondary or tertiary care center)

Allocation concealment, randomization and technique of blinding (therapist, patient, assessor)

Describe recruitment of subjects on the basis of inclusion and exclusion criteria and rationale for sample size

Describe the exposure or intervention investigated, what outcomes were measured, when and how they were measured

Describe outcome or dependent variables starting with the primary outcome measures

Provide sufficient details about the software and statistical analysis used. Details should clearly mention about the basis of various parametric and non-parametric tests



# Write up the results!

Section answers the question, “..*what have you found?*”; heart of the manuscript.

## Results are Key Aspect (heart) of the Manuscript

Results from each research question must be presented and are essential for 1) a thoughtful discussion and 2) to CONFIRM or REJECT the hypothesis (they do not prove anything).

Present key findings OBJECTIVELY and lay the foundation for the Discussion (were those data are SUBJECTIVELY interpreted).

# Write up the results!

## Recommendations

Rather than presenting the details all at once, write a short summary about each data set/RQ.

For complicated data, divide results into multiple sections with clear headers **following the sequence laid out** in the *Methods* section.

# Write up the results

## Recommendations

Write the result section after figures and tables are constructed and including them in the outline.

Write in the past tense.

Use sub-headings to keep results of the same type together.

Craft a descriptive sentence or two that summarizes each result, referring to corresponding table and figure numbers.

# Write up the results!

## Statistical Rules

Indicate the statistical tests used with all relevant parameters: e.g., mean and standard deviation (SD): 44% ( $\pm 3$ ); median and inter-percentile range: 7 years (4.5 to 9.5 years).

Use mean and standard deviation to report normally distributed data.

Use median and inter-percentile range to report skewed data.

For numbers, use two significant digits unless more precision is necessary (2.08, not 2.07856444).

Never use percentages for small samples (e.g., "one out of two" should not be replaced by 50%).

# Write up the results!

## Statistical Considerations

While statistical tests give data credibility by allowing one to attribute observed differences to nonrandom variation, they fail to address the actual meaning of the data.

Δ Translate the data into understandable terms and refer to statistical results as supplemental information, or even in parenthetical clauses (Schimel 2012).

For example, if the dependent variable changed in response to a treatment, report the magnitude (effect size) and direction of the effect, with the P-value in parentheses and confidence intervals.

If the P-value exceeded 0.05 (or another other statistical tests yielded nonsignificant results), report any noticeable trends in the data rather than simply dismissing the treatment as having no significant effect (Fry 1993).

Leave out any interpretation of the results from this section

# Write the discussion!

Section answers the question, “...*what do the results mean?*”

Here is your chance to **sell the data**.

Take into account that a huge numbers of manuscripts are rejected because the discussion is weak.



# Write the discussion!

## Discussion Recommendations

Discussion must correspond to the Results, but do **not reiterate the results**.

Need to compare the published results by colleagues with yours (should include some of the references cited in your Introduction).

Never ignore research or theories that disagree; acknowledge it and explain why your data is correct or better.

Acknowledge weakness and limitations – DO NOT IGNORE THEM – address them head on!

# What is the conclusion?

Answers, “...*how does the work advances the field from the present state of knowledge?*”

Conclusion part should contain the key message that has been discussed in the manuscript. It should be brief, succinct and should not mention anything which has not been discussed earlier in the text.

Similar to abstract, no **reference** should be cited in this part of the manuscript.

# What is the conclusion?

- Offer a clear scientific justification for the work and indicate uses and extensions if appropriate.
- Common errors in this section...
  - Repeating the abstract
  - Listing experimental results.
  - Trivial statements about the results