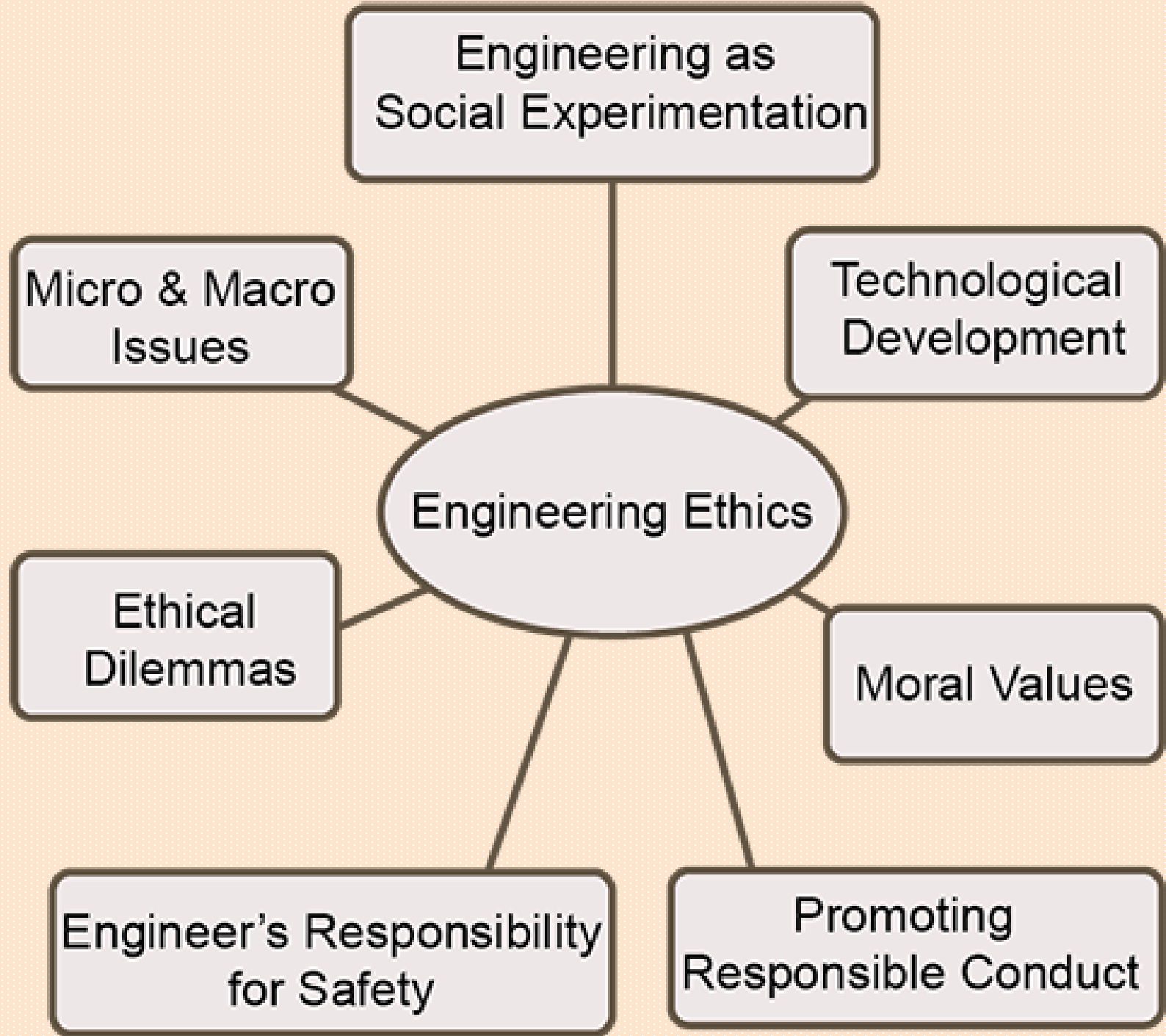


Module -3

Ethics in Engineering Research & Technical Writing: Ethics in Engineering Research Practice, Types of Research Misconduct, Ethical Issues Related to Authorship, Free Writing and Mining for Ideas, Attributes and Reasons of Technical Writing, Writing Strategies, Journal Paper: Structure and Approach, Language Skills, Writing Style, and Editing, Rules of Mathematical Writing, Publish Articles to Get Cited, or Perish, IMRaD Guidelines, COPE Guidelines

5 Hours



Engineering as Social Experimentation

Micro & Macro Issues

Technological Development

Engineering Ethics

Ethical Dilemmas

Moral Values

Engineer's Responsibility for Safety

Promoting Responsible Conduct

Ethics in Engineering Research

Ethics in engineering research emphasizes integrity, honesty, and responsibility, ensuring that research is conducted with transparency, respect for intellectual property, and consideration for public safety and well-being.

Govt. agencies and universities have research policies.

Ethics examines result use, responsibility is about performance.

Ethics in Engineering Research

- Morality is not law, but laws usually follow morality because morality is our common virtue.
- Ethical codes have emerged since the Nuremberg Law of 1947.
- The Royal Society (BRS) was established to improve scientific practices.
- BRS prioritizes identifying the first researcher to submit their findings for publication.

Whitbeck tackles the thorny issue of authorship in science by asking two simple but important questions:

(1) Who should be listed as the author,

(2) The appropriate registration order. agencies and universities

Ethics in Engineering Research

Scientists make various choices regarding ethics and the impact of technology in various ways:

- i. By setting ethical standards up front, engineering scientists can influence the full benefits of advancing technology.
- ii. Researchers can also tap into the power of design—the process of transforming needs into designs designed to meet those needs.
- iii. Ethical decisions should be made to determine the importance and importance of the requirements while creating the process.
- iv. The engineering scientists must choose different options to complete similar tasks.

- **Research findings often have negative side effects.**
 - **Minimize hazards, and evaluate alternatives.**
- **Design needs centralized security and a backup system.**



Simultaneous Submission



No Informed Consent



Duplicate Submission



Salami Slicing



Non-Disclosure of Safety Procedures



No Permission for Data/Information Usage



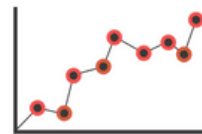
Conflicts of Interest



Copyright Infringement



Authorship Issues



Data Falsification



Plagiarism



Data Fabrication



Image Manipulation

Honesty

In all aspects of research,
including:

- Planning
- Methods
- Data collection
- Credit
- Reporting
- Interpretation

Rigour

In line with disciplinary norms, including in:

- Appropriate methods
- Following protocols
- Interpreting data
- Drawing conclusions
- Disseminating results

Transparency

Promoting trust and confidence, including by:

- Reporting full methods
- Publishing all results
- Sharing data, code and materials
- Declaring conflicts of interest

Research Integrity

Respect

For everyone & everything involved in research,
including:

- Colleagues
- Other researchers
- Participants
- Animals
- The environment

Accountability

Of everyone involved in research, including:

- Researchers
- Institutions
- Funding bodies
- Publishers

Types of research Misconduct

- Engineering research should be conducted to improve the state-of-the-art of technologies.
- Research integrity encompasses
 - dealing fairly with others,
 - honesty about the methods and results,
 - replicating the results wherever possible so as to avoid errors,
 - protecting the welfare of research subjects,
 - ensuring laboratory safety, and so forth.
- In order to prevent mistakes, peer reviews should take place before the research output is published.

Types of research Misconduct

Three Forms of Research Misconduct



Plagiarism



Fabrication



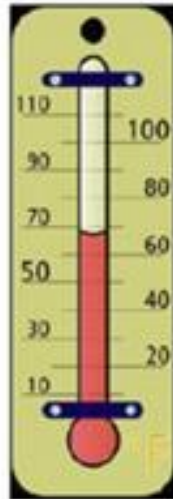
Falsification

Force to
publish
more

Students, researchers, professional employees,
and lab technicians



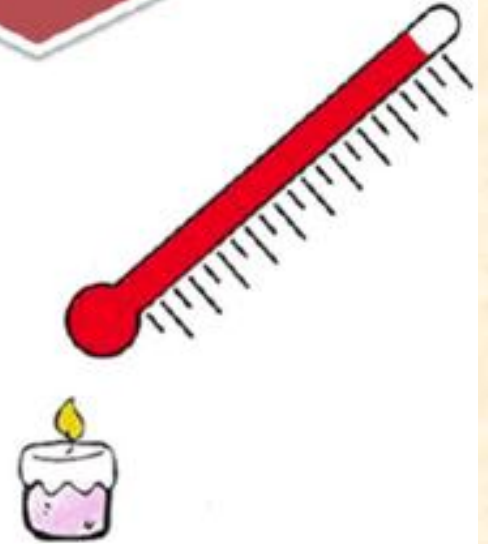
Plagiarism



100 F



fabrication



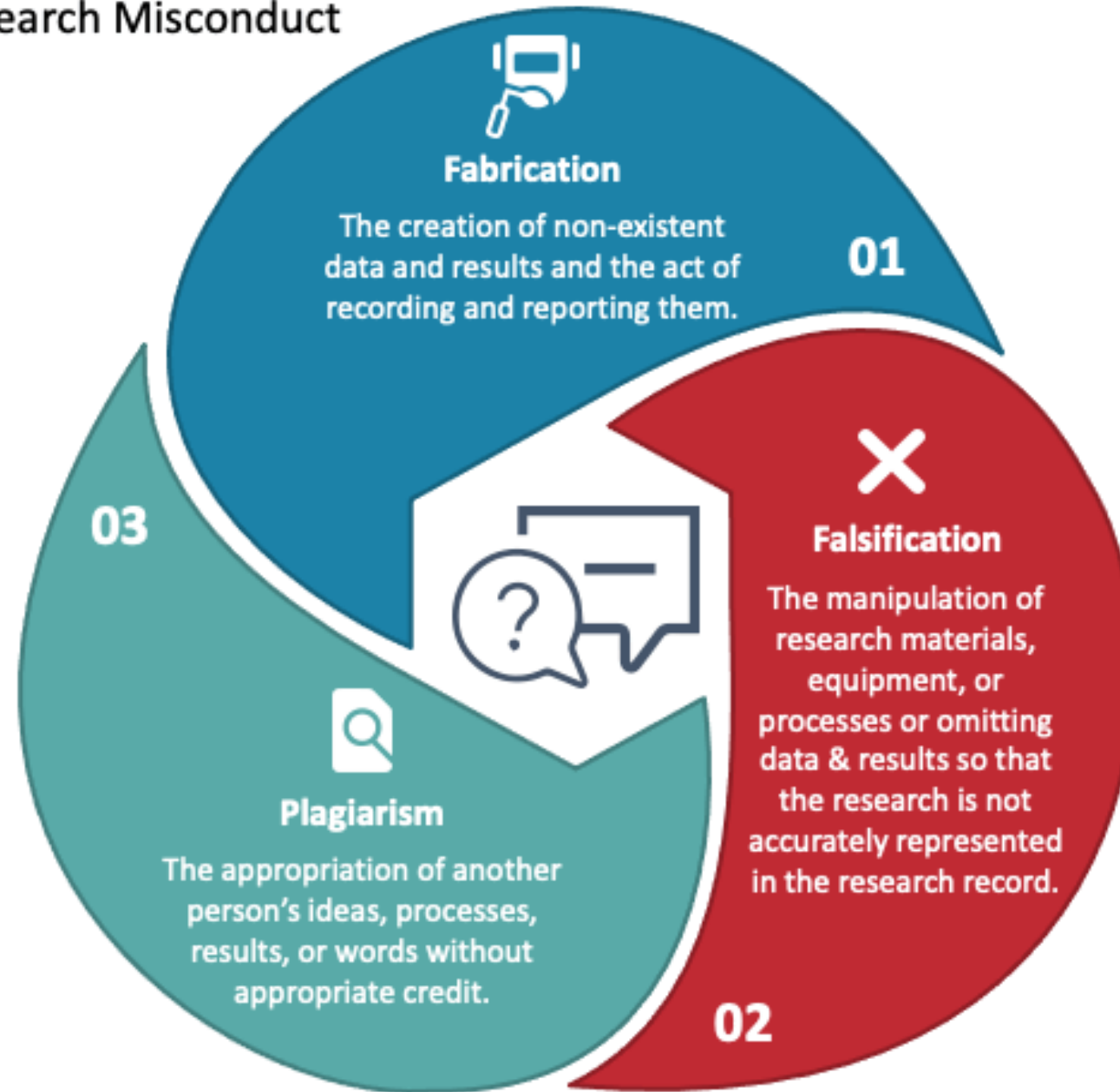
falsification

Types of research Misconduct

- I. Fabrication:** It is the creation of documents or a test of knowledge in the belief that the person understands the results of the analysis.
- II. Falsification (falsification of information):** This refers to the misrepresentation or misinterpretation of information or test, of illegal changes to support a hypothesis, even if actual data from experimental data suggest otherwise.
- III. Plagiarism (excluding the use of someone else's work):** Manifesting other's work (including parts) (text, document, table, picture, diagram or content) as it appears in his work.
- IV. Other types of research bias:** Significant deviations from accepted behavior can be interpreted as research bias. **Ex:** Submitting an article to two different journals at the same time is also a violation of the copyright.

RESEARCH MISCONDUCT

Defining Research Misconduct





How can we warn reviewers, reviewers or editors about plagiarism?



- **Important points can be explained in your own words, so there is no need for copying.**

•

However, the mention of a source does not mean that a sentence (or sentence) in the main content can be repeated.

- **Researchers should practice writing in such a way that readers can distinguish the author's ideas or conclusions from other sources.**
- **This practice allows people to decide whether they are overusing or relying on the content of available information.**



TYPES OF PLAGIARISM

Global plagiarism means passing off an entire text by someone else as your own work.

Verbatim plagiarism means directly copying someone else's words.

Paraphrasing plagiarism means rephrasing someone else's ideas to present them as your own.

Patchwork plagiarism means stitching together parts of different sources to create your text.

Self-plagiarism means recycling your own past work.

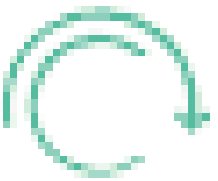
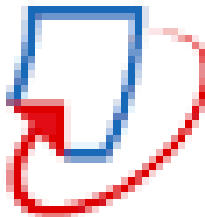




Few Sample Plagiarism Software's



PlagScan  PaperRater  PLUGTRACKER

SmallSEQTTools  UNICHECK 

noplag  turnitin  quetext

 grammarly  COPYSCAPE

paper

ORIGINALITY REPORT

14%

SIMILARITY INDEX

5%

INTERNET SOURCES

4%

PUBLICATIONS

5%

STUDENT PAPERS

PRIMARY SOURCES

1

Submitted to Visvesvaraya Technological University, Belagavi

Student Paper

5%

2

data.opendevlopmentmekong.net

Internet Source

1%

3

www.frontiersin.org

Internet Source

1%

4

mite.ac.in

Internet Source

1%

5

Murthy Shruthi, Shivaswamy Mahesh, Mahesh Sahana, Hanumanthappa Srikantha.

"Arsenite removal mechanism from groundwater in a two-dimensional batch electrochemical treatment process", DESALINATION AND WATER TREATMENT, 2019

Publication

1%

6

pt.scribd.com

Internet Source

1%

7

www.researchgate.net

Internet Source

1%

8

Ahmed Amine Hachicha, Zafar Said. "Numerical modeling and multi-objective optimization of direct absorption solar collectors using mono and hybrid nanofluids", Journal of Cleaner Production, 2023

Publication

1%

9

chnep.wateratlas.usf.edu

Internet Source

1%

10

Ahmad Hamad, Ahmed Aidan, Muataz Douboni. "Cost-effective wastewater treatment and recycling in mini-plants using mass integration", Clean Technologies and Environmental Policy, 2002

Publication

<1%

11

M. C. Jayaprakash, M. Chaitra, Prarthana Rai, D. Venkat Reddy. "Chapter 16 Removal of Methylene Blue from Aqueous Solution: An Approach of Environmental Friendly Activated Carbon", Springer Science and Business Media LLC, 2021

Publication

<1%

Exclude quotes On

Exclude matches < 3 words

Exclude bibliography On

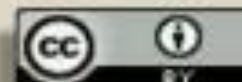
Authorship Of Research Papers



“You should spend the next week typing down names of all co-authors on your paper.”

Academic Authorship

How Many Authors Are Too Many?



Academic authorship

- **Academic authorship** of journal articles, books, and other original works is a means by which academics communicate the results of their scholarly work, **and build their reputation among their peers.**



Academic Authorship



Ethical Issues Related to Authorship

- Academic writing involves communicating research work, evaluating findings, and promoting peers' reputations.
- Authorship is crucial and should only be given to those who have made significant contributions.
- False authorship can negatively impact credibility and ethics. It is important to disclose all involved parties for proper assessment.

Ethical Issues Related to Authorship

Authorship involves communication, priority, and accountability.

Types of Authorship Misconduct:

- **Guest/Gift Authorship:** Including non-contributors.
- **Career-boost Authorship:** Boosting employment or promotion chances.
- **Career-preservation Authorship:** Adding superiors as coauthors for mutual benefit.
- **Ghost Authorship:** Omitting contributors due to conflicts of interest.
- **Reciprocal Authorship:** Listing each other as coauthors without real collaboration.
- **Double Submission:** Submitting to multiple journals simultaneously.

Why is Authorship an Issue?

- Authorship has value
 - Researchers want/need credit for their work
- Authorship carries responsibility
 - Greater awareness and sensitivity to scientific misconduct
- Authorship describes professional collaborations
 - Increased number of authors per paper

Responsibilities of authors

Authorship Responsibilities

- Authors must be willing to...
 - Defend the intellectual content of the manuscript, including results and conclusions
 - Concede publicly any errors
 - In the case of fraud, state publicly its nature and extent and account for its occurrence
- Authors must certify that...
 - The manuscript is original work without fabrication, fraud, or plagiarism
 - The manuscript has been submitted to only one journal for consideration
 - Any conflicts of interest by any author have been disclosed

Free Writing and Mining for Ideas

Free writing is a prewriting technique in which a person writes continuously for a set period of time without regard to spelling, grammar, or topic. It produces raw, often unusable material, but helps writers overcome blocks of apathy and self-criticism.

Free writing is an exercise of writing without stopping or editing for a fixed amount of time.

Enhancing Free Writing Techniques

Role-Playing

Explores ideas from multiple perspectives

Mind Mapping

Organizes ideas into a structured framework

Sensory Writing

Enriches writing with sensory details

Brainstorming

Expands ideas through collaborative effort

Meditation and Free Writing

Enhances clarity and creativity

Storyboarding

Visualizes the sequence of ideas



Mining for Ideas

This approach introduces idea **mining** as process of extracting **new and useful ideas** from unstructured text.

Aims to go beyond simple information retrieval and uncover hidden knowledge, trends, and relationships.

How it's done:

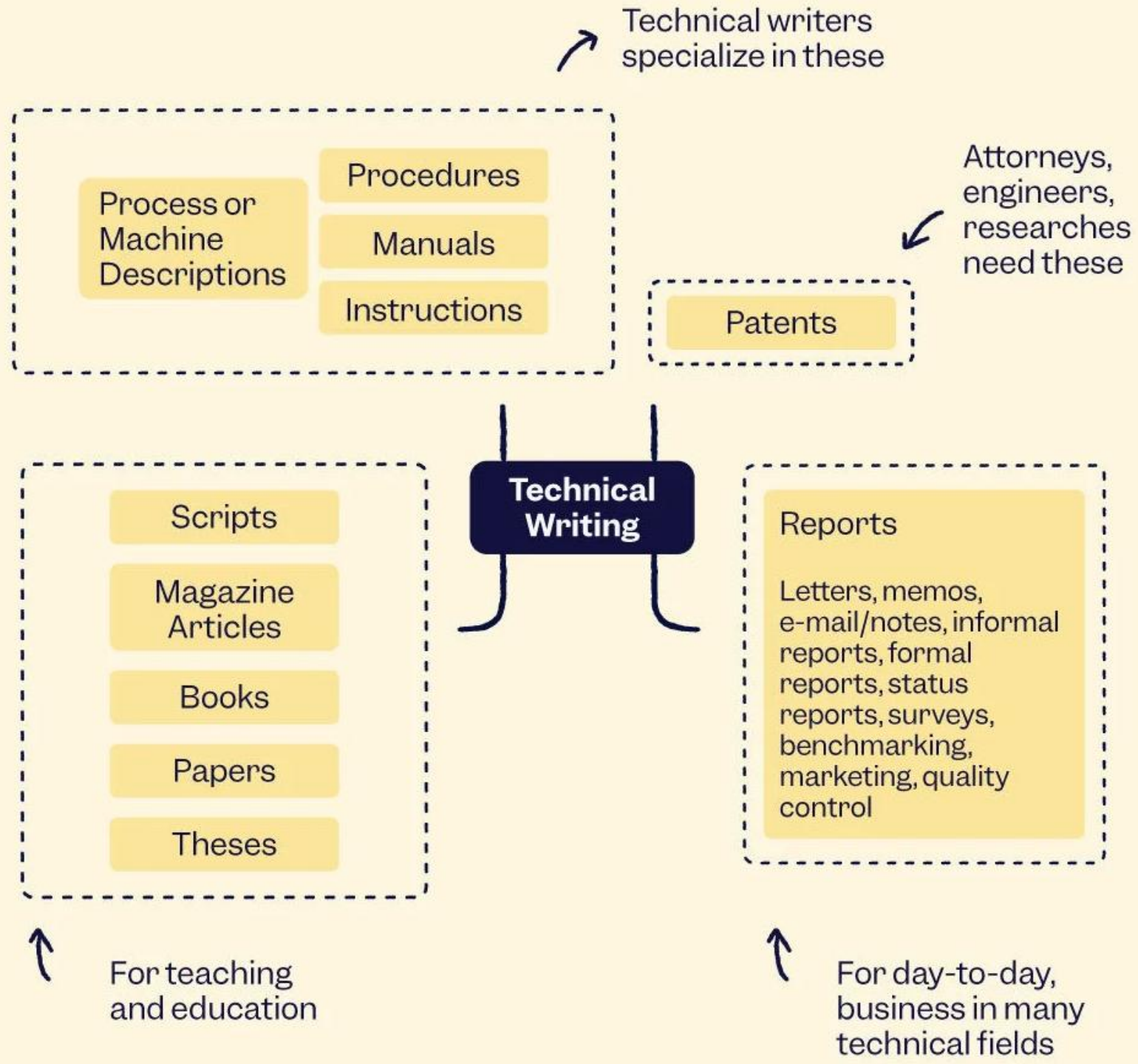
- **Text Mining:** Analyzing textual data (e.g., research papers, online reviews, social media) to identify recurring themes, patterns, and emerging ideas.
- **Machine Learning:** Applying algorithms to large datasets to detect patterns, predict outcomes, and uncover insights that might be difficult for humans to discern.
- **Data Mining:** Extracting valuable information from large datasets using various techniques, including clustering, classification, and association rule mining.

Why it's important:

- **Identifying research gaps:** Idea mining can help researchers identify areas where further research is needed or where existing knowledge is incomplete.
- **Generating new research ideas:** By uncovering patterns and relationships in data, researchers can formulate new hypotheses and research questions.
- **Improving decision-making:** In fields like business and healthcare, idea mining can help organizations make more informed decisions based on data-driven insights.
- **Uncovering hidden knowledge:** Idea mining can help researchers discover patterns and relationships in data that might not be apparent through traditional methods.

Attributes and Reasons of Technical Writing

Technical writing is often described as the art of simplifying the complex. A technical writing should be clear, concise, and complete, with assumptions plainly identified and data presented (including their uncertainty) with precise logic, with relevance to practices described, and with actual accomplishments of the work clearly stated and honestly appraised.



What is the purpose of technical writing?

- Technical writing is the delivery of technical information to readers in a manner that is adapted to their needs, level of understanding, and background.
- Technical writing is intended to communicate to a specific audience, for a specific purpose.



Attributes of technical Writings

- It pertains to a technical subject.
- It has a purpose.
- It has an objective.
- It conveys information/facts/data.
- It is impersonal.
- It is concise.
- It is directed.
- It is performed with a particular style and in a particular format.
- It is archival.
- It cites contributions of others.

Technical writing...

Communicates issues in engineering and the sciences

Form and **style** requirements differ from those of other types of writing

Reports need to include definite **elements**

Does **not employ humor** or slang

Is **objective-oriented**

Does **not blame** the reader

Requires **facts** and **figures**

Never hides facts

Deals with **nonadministrative** issues

Is **never** used as **advertising** copy

Is **impersonal**—it does not use personal pronouns or name people who performed parts of the work

The **7 Cs** of Effective Technical Writing

Technical writing needs to be:

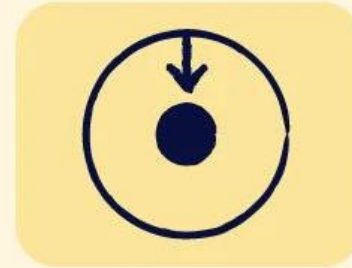
Clear



Concise



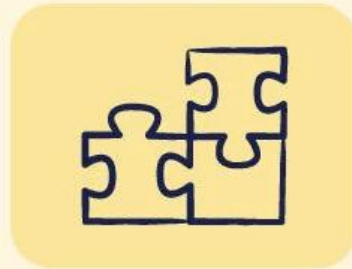
Concrete



Correct



Coherent



Complete



Courteous



Technical Writing Skills

Writing and editing

Strong writing and meticulous editing skills are crucial for producing clear, concise, and error-free documentation.

Conveying information effectively

They excel in breaking down complex information into understandable, user-friendly content.

Research and audience analysis

Technical writers constantly research and analyze their audience to tailor content that meets specific needs and preferences.



Subject matter expertise

Technical writers must deeply understand the topics they cover to explain complex concepts clearly.

Design

They utilize design skills to create documents that are visually appealing and easy to navigate.

Use of technical tools

Mastery over documentation tools and content management systems is essential for efficient document creation and management.

Strategies for Concise Technical Writing

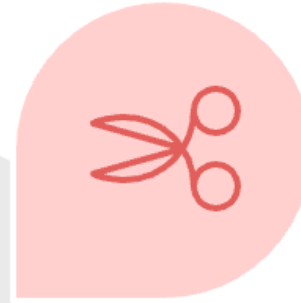
Prefer Active Voice

Choosing active voice for more engaging sentences



Eliminate Unnecessary Words

Removing superfluous words to enhance clarity



Avoid Jargon

Steering clear of complex terms unless essential



Use Clear Language

Employing straightforward language for better understanding



**Journal Paper: Structure and Approach, Language Skills,
Writing Style, and Editing, Rules of Mathematical Writing**

10 SIMPLE RULES FOR WRITING RESEARCH PAPERS

1: MAKE IT A GUIDING FORCE

Design a project with an ultimate paper firmly in mind. Use writing to reassess the project, reevaluate experiment logic, and verify research results.

2: BE CONCISE AND OBJECTIVE

Use simple language to convey complex ideas. Avoid using jargon or technical terms that may not be familiar to your readers.

3: LESS IS MORE

It is often the case that more than one hypothesis or objective may be tackled in one project. The significance, completeness, and coherence of the results should be the principal guide for selecting the story to tell.

4: USE THE THIRD PERSON

Write in the third person to maintain objectivity and avoid personal bias.

5: BE SPECIFIC

State your hypothesis clearly and concisely, and explain why it is important. Define your terms precisely and provide examples where appropriate.

6: ACKNOWLEDGE POTENTIAL PITFALLS:

Be honest about the limitations of your research and acknowledge any potential biases or confounding factors.

7: AVOID REDUNDANCY

Do not repeat information that has already been presented elsewhere in the paper. Use tables and figures to present data in a clear and concise manner.

8: GET FEEDBACK

Seek feedback from colleagues, mentors, or other experts in your field to improve your paper.

9: REVISE AND REWRITE

Writing is an iterative process. Revise your paper multiple times to ensure that it is well-organized, clear, concise, and free of errors.

10: GIVE YOURSELF TIME

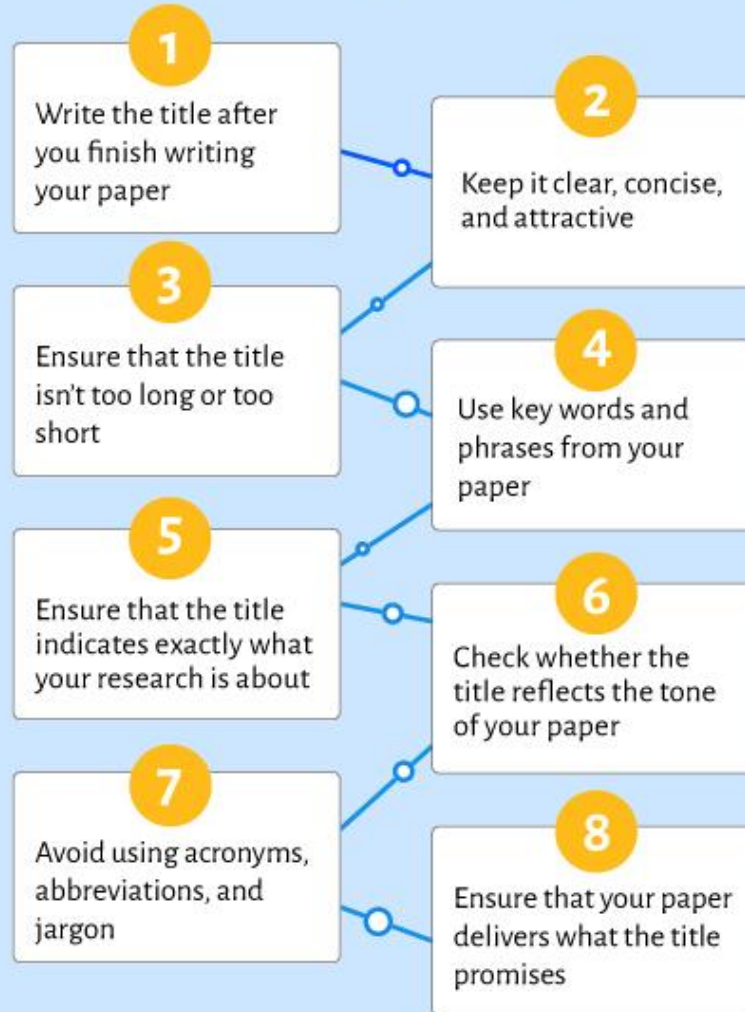
Writing a high-quality research paper takes time and effort. Plan ahead and give yourself enough time to complete each step of the process.

8 QUICK TIPS TO CREATE A GREAT RESEARCH PAPER TITLE



A title is to a research paper what a headline is to a news article!

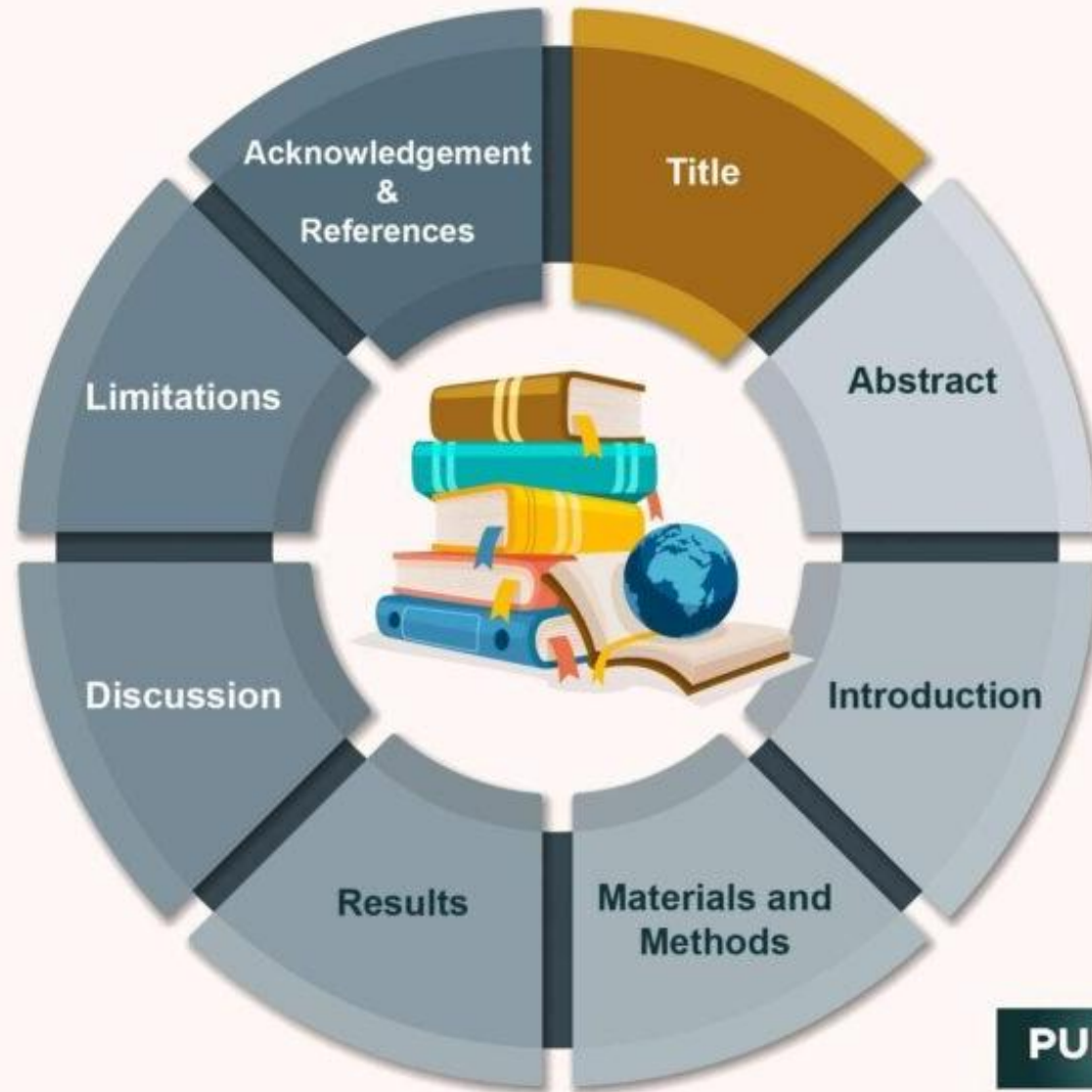
Here are some tips on writing a great title for your research paper



If your title packs a punch, it will engage the readers and compel them to read your paper.

Most Journal-style scientific papers are subdivided into the following sections: Title, Authors and Affiliation, Abstract, Introduction, Methods, Results, Discussion, Acknowledgments, and Literature Cited/References.

Structure and Format of a Scientific Manuscript



PROCESS

PAPER

RQ

Abstract

Study design

Introduction

Data collection

Method

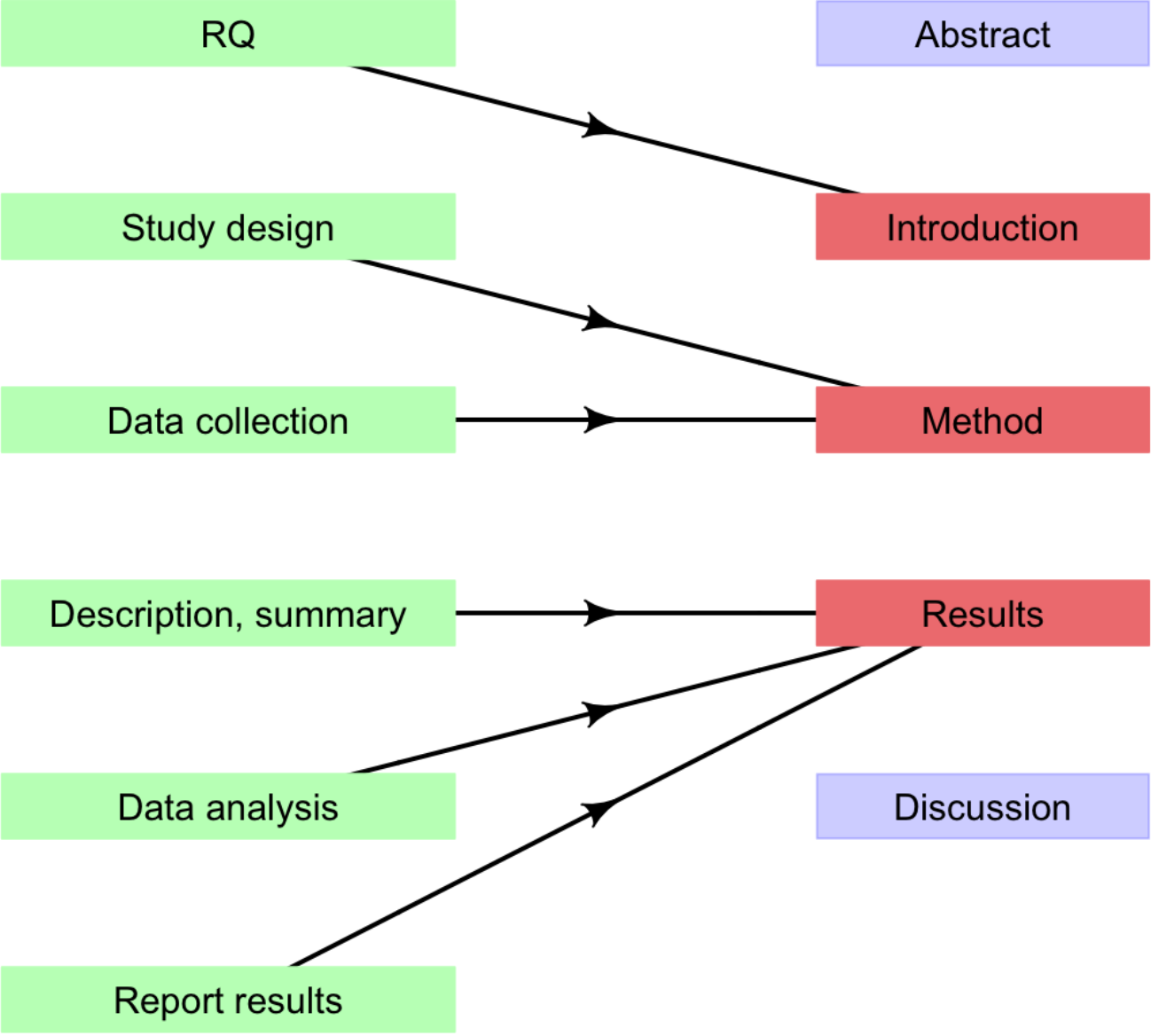
Description, summary

Results

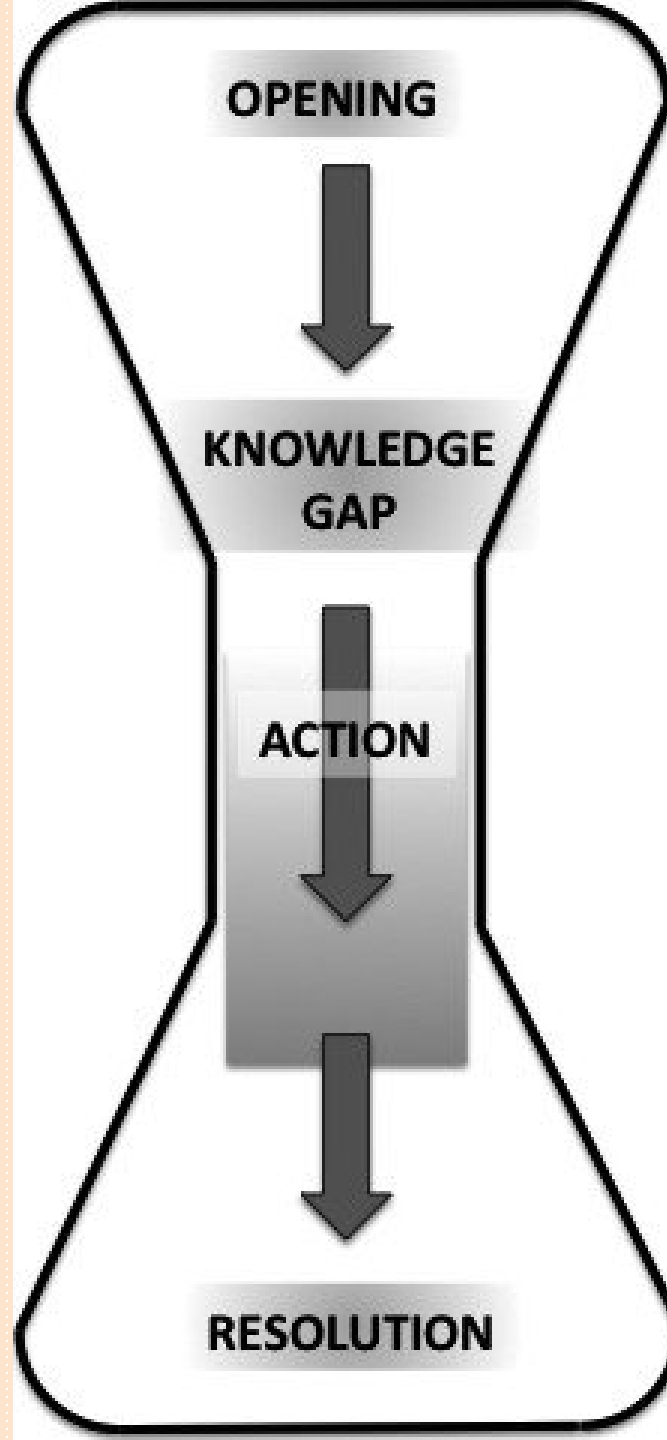
Data analysis

Discussion

Report results



Framing a Journal paper. The structure of a paper mirrors that of an **hourglass**, opening broadly and narrowing to the specific question, hypothesis, methods, and results of the study. Effective papers widen again in the discussion and conclusion, connecting the study back to the existing literature and explaining how the current study filled a knowledge gap.



INTRODUCTION

*INTRODUCE RELEVANT LITERATURE
EXPLAIN WHY YOUR STUDY IS NOVEL
HYPOTHESIS*

MATERIALS AND METHODS

*INTRODUCE STUDY SYSTEM
EXPLAIN METHODS SUCH THAT A READER
COULD RECREATE YOUR STUDY*

RESULTS

*OBJECTIVELY STATE FINDINGS
FOCUS ON BIOLOGICAL RESULTS
USING STATISTICS FOR SUPPORT*

DISCUSSION

*INTERPRET YOUR RESULTS
TIE YOUR RESULTS BACK TO THE LITERATURE
BY ANSWERING THE KNOWLEDGE GAP*

CONCLUSIONS AND IMPLICATIONS

Things to consider when writing an abstract



Introduction

Purpose/importance of the study

Problem statement

The research question/aim



Methods

Research approach/design

Participant information

Data collection method

Analytical technique including statistical tests



Results

Sample size

Qualitative study: Key themes identified

Quantitative study: Descriptive and inferential statistics results reported (estimates and p-values)



Conclusion

How does this study add to the body of knowledge on the topic?

Are there any practical or theoretical applications from the findings or implications for future research

The **quality of research** and the manuscript are two different things. a **personal writing style as an author**, it needs to be precise and unambiguous to be effective. If the language of research papers that you write is **not readable and contains simple writing mistakes**, it will probably decrease the chance of being accepted.

Thus, the Journal paper language and its readability are the final factors determining your publishing success and your paper's impact

Listening



Speaking



Reading



Writing



Mastery of Language Skills

Thematic approaches and combined strategies
Repetitive practice in each levels

9 Tips to Improve Readability and Language in Your Research Paper

1. Proofread for elementary mistakes: Grammatically correct usage of the language of research papers is very important.

2. Keep it simple: When it comes to the research paper language, keeping it simple will make your work more accessible to others.

3. Maintain consistency and logical flow in writing: As a writer, should strive for consistency in using hyphens, units of measure, punctuation, grammar, symbols, capitalization, and acronyms.

4. Avoid redundancy: Redundancy is the repetition of words and phrases that, if omitted, will not impair the meaning but make the text polished and easier to follow. **Therefore, replace “due to the fact that” with “because,” “In the form of” with “As,” “In many cases” with “Often” and “has the ability to” with “can.”**

5. Use reader-friendly fonts: Most journals suggest using user-friendly fonts, such as Times New Roman, Arial, and Helvetica, which are easy on the eye.

9 Tips to Improve Readability and Language in Your Research Paper

- 6. Shorten your words and sentences:** Long sentences affect the readability of articles and the overall language of research papers.
- 7. Frontload your sentences:** The most important information should be mentioned at the beginning of the sentence rather than at the end.
- 8. Pay attention to reviewer comments:** Common criticisms from reviewers concerning language of the research paper include unclear and poorly written manuscripts, inappropriate structure, lengthy manuscripts, unclear Discussion sections, and information redundancy. Focus on areas where you have received negative comments in your earlier manuscripts when working on your next one.
- 9. Test your writing using readability formulas:** Finally, in the era of data metrics, **can check the average readability using an 'r-index' such as the New Dale-Chall (NDC) readability score or the Automated Readability Index. A grade level of 7 or 8 is considered good.**

10 Tips
to improve
your **written**
communication
skills at work

Plan before writing

01

Be clear with your message

02

Ensure correctness

03

Set the tone

04

Keep it engaging

05

06

Have a god structure

07

Proofread your message

08

Know your audience

09

Always research your topic

10

Learn persuasive speech



ARTICLE WRITING

The approach on writing depends on **WHO** the audience is, **WHERE** it will be published, and **WHAT** the purpose is

The general structure of an article usually follows that of an essay. There should be:

- An interesting title
- An introduction
- A body
- A conclusion



Custom Essay

MEISTER

What is Journal Writing

- Journal writing is a learning tool based on the ideas that students write to learn.
- Students use the journals to write about topics of personal interest, to note their observations, to imagine, to wonder and to connect new information with things they already know.

Math Journal Writing

- The goal of writing in mathematics is to provide students with opportunities to explain their thinking about mathematical ideas
- re-examine their thoughts by reviewing their writing.
- Writing will enhance students' understanding of math as they learn to articulate their thought processes in solving math problems and learning math concepts.

How to write a Mathematics Research Paper

Mathematics research paper writing is very different from standard research paper writing. But not so unique that it requires a different set of guidelines.

While writing a mathematics research paper, the writer must follow the logic and language that specify the research paper completely, including symbols and regimented notation.

1. Logic

Logic is the core framework found in our research paper on mathematics. Each equation we write has a core presence of theorem and flows logically.

2. Definitions

We include all logical terms and notations in the research paper. When you order a paper from us, you will understand our process and what steps we go through to bring authentic paper for you.

3. Theorems and Equations

Theorems and equations must be separate from the surrounding text. It is used as a reference point for a well-defined beginning.

4. Math Symbols and Notations

Math symbols and notations are differentiated within mathematics literature. The deviation may cause confusion and our writers follow the guidelines for equations, units, and mathematical notation.

Rules of Mathematical Writing

Knuth et al. [2] have presented several guidelines for mathematical writing [2]. Instead of providing a lot of details about writing sentences involving mathematical symbols, we summarize some of those rules that are useful for engineering researchers using some examples:

1. Symbols in different formulae must be separated by words:

Avoid: Consider $m_a, a < b$.

Follow: Consider m_a , where $a < b$.

2. Symbol should not be used to start a sentence:

Avoid: $\frac{m(s)}{n(s)}$ has r zeroes, and q poles.

Follow: The transfer function $\frac{m(s)}{n(s)}$ has r zeroes, and q poles.

Topic: Expansion and factorisation of algebraic Expression

Is $(a+b)^2 = a^2 + b^2$?

Is $(a-b)^2 = a^2 - b^2$?

Answer to the question

No, for both questions because $(a+b)^2 = a^2 + 2ab + b^2$

$$(a-b)^2 = a^2 - 2ab + b^2$$

Reasons for answer

Appropriate mathematical term

We can prove this using the FOIL method:-

i) $(a+b)(a+b)$
 $= a^2 + ab + ab + b^2$

ii) $(a+b)(a-b)$
 $= a^2 - ab - ab + b^2$

and also using a geometrical representation [a square sheet of paper]

Proofs

New things I learnt:-

$$(a-b)^2 = (b-a)^2$$

$$\begin{aligned} \text{L.H.S} &= (a-b)(a-b) \\ &= a^2 - ab - ab + b^2 \\ &= a^2 - 2ab + b^2 \end{aligned}$$

$$\begin{aligned} \text{R.H.S} &= (b-a)(b-a) \\ &= b^2 - ab - ab + a^2 \\ &= a^2 - 2ab + b^2 \end{aligned}$$

$$\therefore \text{L.H.S} = \text{R.H.S}$$

Publish Articles to Get Cited, or Perish

To increase the likelihood of getting your articles cited, focus on publishing high-quality, impactful research in reputable journals, actively promote your work, and ensure your publications are easily accessible and well-indexed.

Increasing citation count can also have a positive impact on your career because funding agencies often look at a combination of the number of papers and the number of citations when making grant decisions.

Publication Process:

- 1. Submission to an Appropriate Outlet:** Choose a journal or publication that aligns with the research topic.
- 2. Review Reports and Editorial Decision:** Manuscript undergoes peer review, leading to feedback and an editorial decision.
- 3. Next Steps:**
 - **Submit Revised Version:** Address reviewer feedback and resubmit to the same journal.
 - **Or Submit to Another Journal:** If rejected, consider submitting to a different publication outlet.

WHAT DOES A CITATION LOOK LIKE?

A citation is typically found in two places:

In-Text Citations

Paez, J.L Villa (2018): here they have identified the Ecological observation in internal waters as a prime complication for enough growth and administration of such territories. A well designed Kalman filter was cast-off to estimate the positioning and location by means of the analyses of an inertial part combined with a gaussmeter and Global Positioning System.

Reference Lists/Bibliographies

Paez, J., Villa, J.L., Cabrera, J., Yime, E.: Implementation of an unmanned surface vehicle for environmental monitoring applications. In: Proceedings of 2018 IEEE 2nd Colombian Conference on Robotics and Automation (CCRA), pp. 1–6. Barranquilla, Colombia, 1–3 November 2018

Cited Score Scopus for Example

	Source title ↓	CiteScore ↓	Highest percentile ↓	Citations 2020-23 ↓	Documents 2020-23 ↓	% Cited ↓
<input type="checkbox"/> 1	Ca-A Cancer Journal for Clinicians	873.2	99% 1/404 Oncology	92,555	106	95
<input type="checkbox"/> 2	Nature Reviews Molecular Cell Biology	173.6	99% 1/410 Molecular Biology	34,204	197	92
<input type="checkbox"/> 3	The Lancet	148.1	99% 1/636 General Medicine	266,752	1,801	74
<input type="checkbox"/> 4	New England Journal of Medicine	145.4	99% 2/636 General Medicine	336,463	2,314	83

10 Easy Ways to Increase Citation Count



1: Cite Your Past Work

Watch Later



Cite your past work when it's relevant to a new manuscript. However, don't overdo it by referencing every paper.



2: Choose Keywords Strategically



Select keywords that researchers in your field are likely to search for, ensuring that your paper appears in database searches.



3: Use Keywords in Title and Abstract



Use your keywords and phrases
in your title and repeatedly
in your abstract.



4: Consistent Author Name



Use a consistent form of your name on all your papers. This makes it easier for others to find all your published work.

5: Verify Your Information



Check your name and affiliation on the final proofs of your manuscript and verify the accuracy.



6: Accessibility

Watch Later



If your paper isn't published in an open-access journal, consider sharing pre- or post-publication prints on a repository.



7: Share Your Data

Water-Eate



Some evidence suggests that data sharing can increase your citations.

Post your data on platforms like figshare etc.



8: Present at Conferences

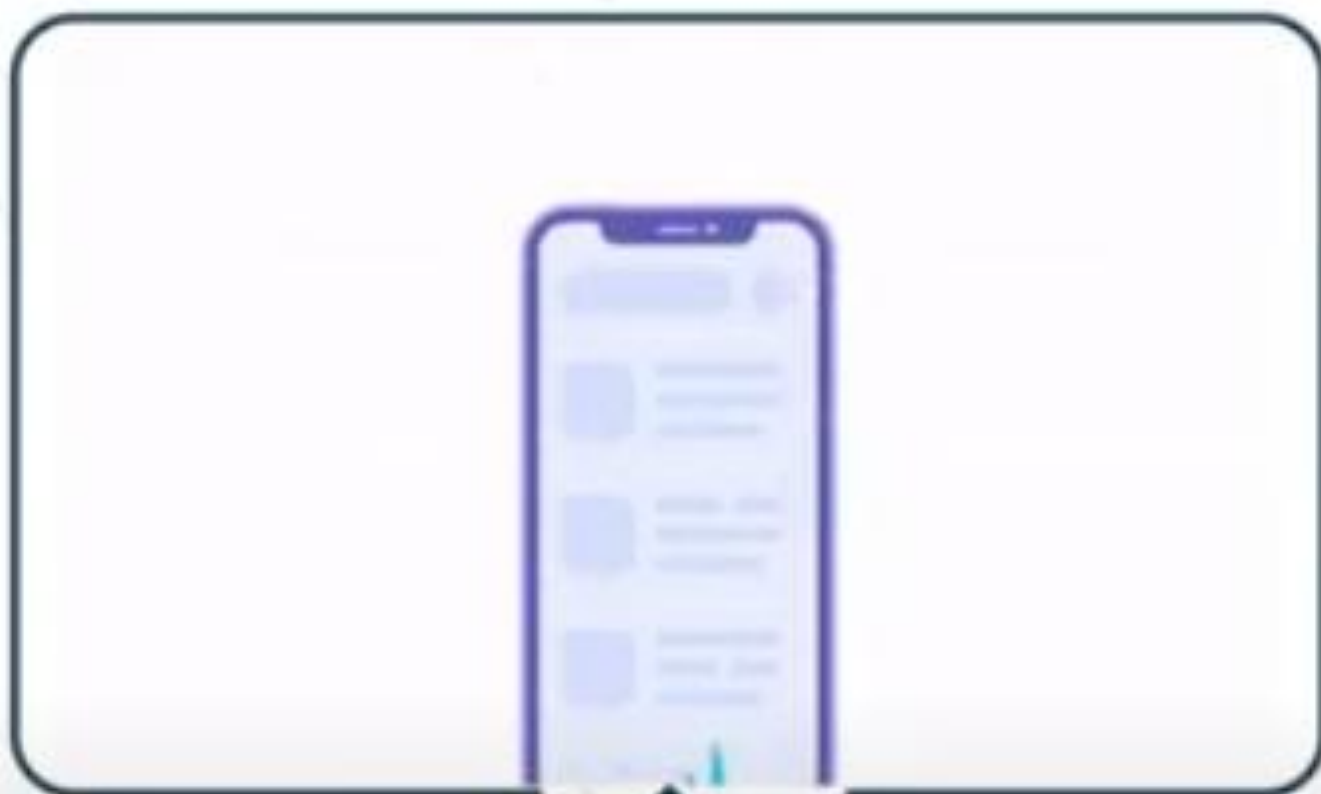


While conference presentations aren't cited like papers, they increase the visibility of your research in the academic and research communities.



9: Use Social Media

Watch Later



Share links to your papers on platforms like Facebook, Twitter, Academia.edu, ResearchGate, and Mendeley.





10: Actively Promote Your Work



Talk to other researchers about your paper, even those outside your field.

Email copies of your paper to potentially interested researchers.

Want to write a highly cited paper?

Tips for maximising article citation frequency

How to cite (APA): Repiso, R., Moreno-Delgado, A., & Aguaded, I. (2020). Factors affecting the frequency of citation of an article. *Iberoamerican Journal of Science Measurement and Communication*; 1(1). <https://doi.org/10.47909/ijsmc.08>

Accessibility
Can users access content?



Dissemination
Does your journal publicise?



Key Considerations
Repiso et al. (2020)



Academic Authority
Readers perceive expertise

Want to write a highly cited paper?

- i. Try to solve real, practical research problems
- ii. **Think BIG! (data over 10 years, rather than 1 year)**
- iii. Publish with researchers who contribute to and complement your knowledge and perspective
- iv. **Publish in English but put a Chinese language version on a preprint server as well**
- v. Use a simple writing style (both Ph.D. students and leading experts will be readers)
- vi. **Talk about your work!**
- vii. Always adhere to ethical principles!

OPINION ARTICLE

Factors affecting the frequency of citation of an article

Introduction

Materials and Methods

Results

And

Discussion

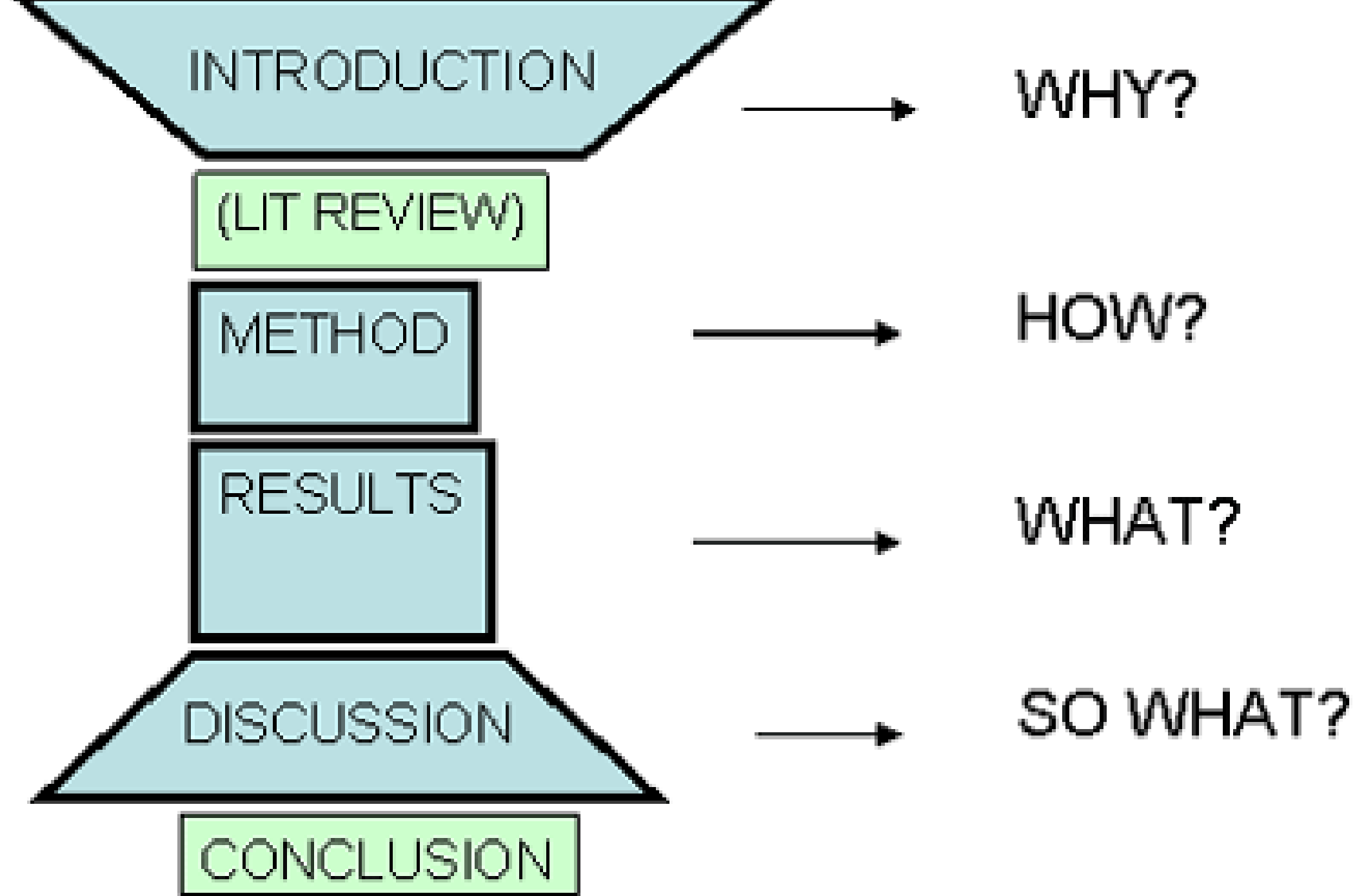


English
Proficiency
Experts

IMRAD Structure

Recommendations

The **IMRaD** format is a standard structure for scientific writing, standing for Introduction, Methods, Results, and Discussion. It's commonly used in scientific articles and journals across various fields, particularly in Healthcare, Natural Sciences, and Social Sciences.



Introduction

- Current state of knowledge with references
- Knowledge gaps
- Primary and secondary objectives

Methods

- Selection criteria for study population
- What has been done and how: Tests, interventions, techniques
- Primary and secondary endpoints
- Ethical considerations
- Dedicated paragraph for statistical analysis

Results

- Describe results: Don't interpret
- Use tables and figures and illustrations
- Every method described should have a dedicated result

Discussion

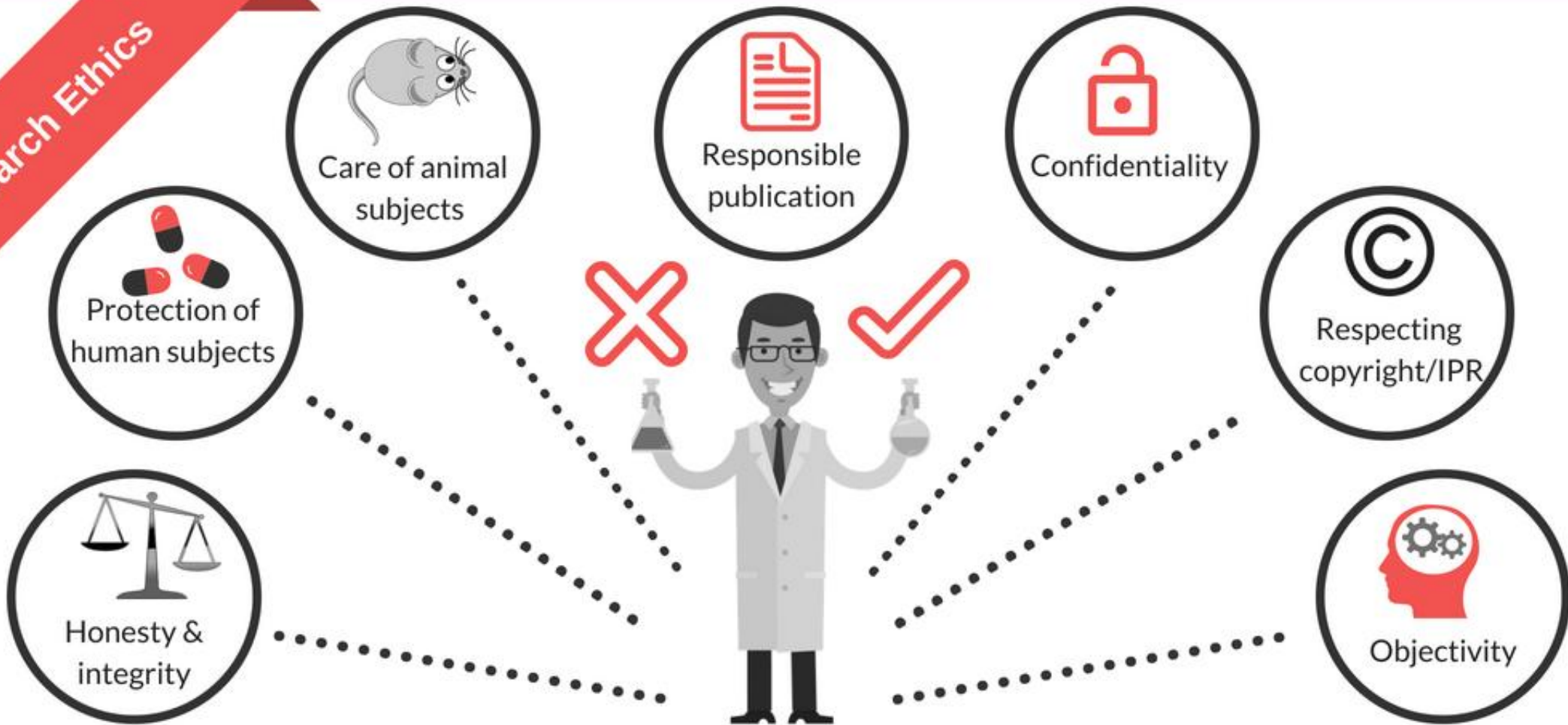
- Recapitulate main findings
- Compare findings with those in literature
- Describe how results contribute to knowledge and advancement
- Summarise strengths and limitations of the study

C | O | P | E

COMMITTEE ON PUBLICATION ETHICS

The Committee on Publication Ethics (**COPE**) is a non-profit organization that defines best practices in scholarly publishing ethics and assists editors and publishers in upholding them, particularly regarding research integrity and publication misconduct.

Research Ethics



Allegations of misconduct

Authorship & Contributor
ship

Conflicts of Interest &
Competing interest

Data & Reproducibility

Ethical Oversight

COPE

Intellectual Property

Post publication
discussions & corrections

Journal Management

Peer Review processes

Complaints & appeals

What COPE does

Membership organisation (and registered charity) for journal editors and publishers:

- Provides advice (not regulation) on all aspects of publication ethics
- Provides support and resources for good publication practice (guidance documents, flowcharts)
- Advises on how to handle cases of research and publication misconduct (forums)
- Educates editors on identifying research and publication misconduct and their responsibilities (seminars, talks, e-learning modules)

COPE history

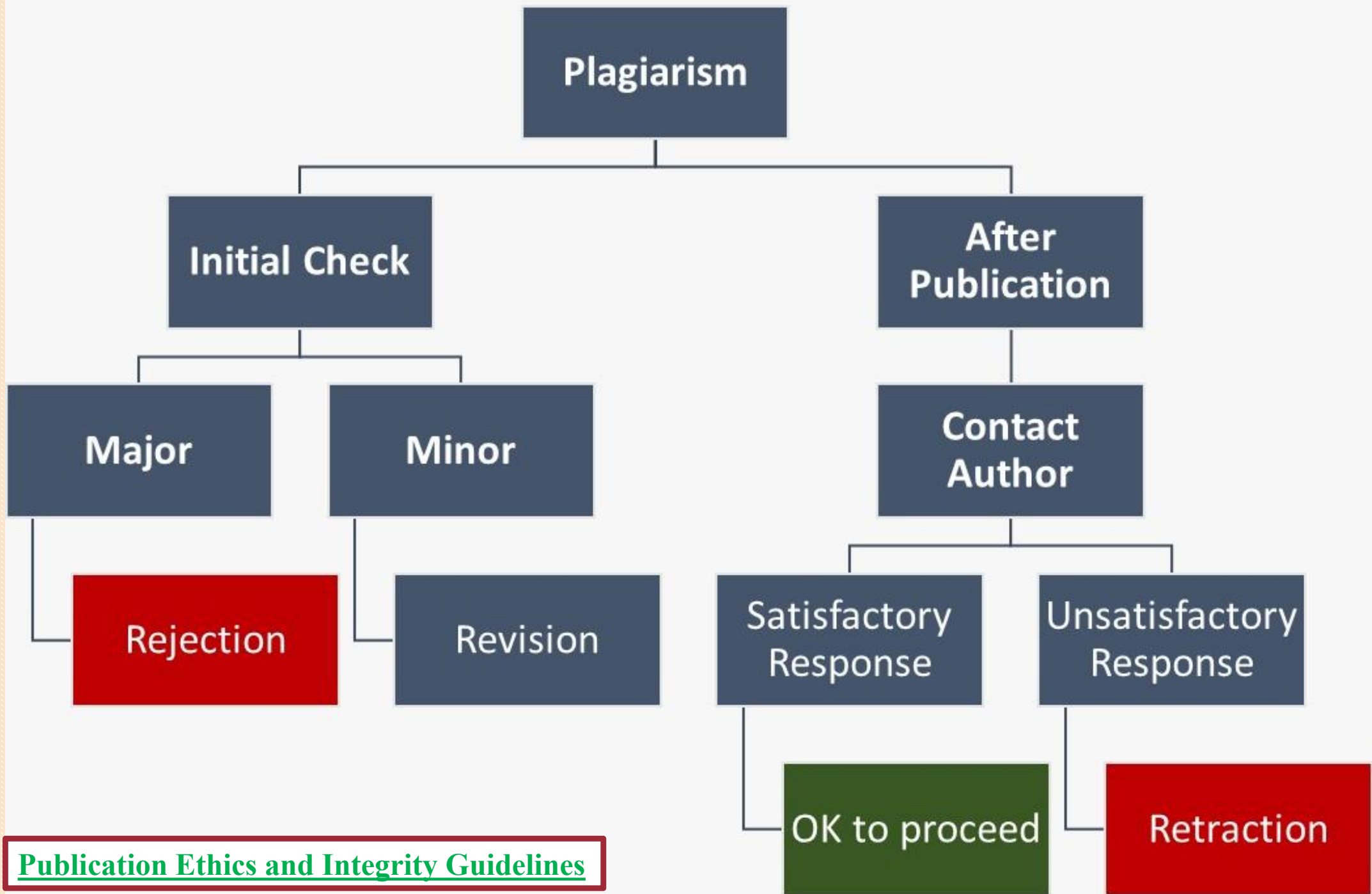
- Began in 1997 as an informal forum for editors in the UK to discuss ethical issues related to research and publication in biomedical journal publishing
- In 2007-08 established as a limited company and a UK-registered charity
- Currently >8000 members, from 75 countries
- All academic disciplines are covered
- 20 Council members from 11 countries and a range of disciplines

Guidance documents

- Code of conduct and best practice guidelines for journal **editors**
- Code of conduct for journal **publishers**
- Guidelines for the **board of directors** of learned society journals
- Ethical guidance for **peer reviewers**
- Guidance on co-operation between research institutions and journals
- Guidelines for retracting articles
- Sample letters for handling common problems
- Discussion documents (eg, anonymous whistleblowing)
- A series of flowcharts

Flowcharts

- Redundant (duplicate) publication
- Plagiarism
- Fabricated data
- Changes in authorship
- Ghost, guest, or gift authorship
- Conflicts of interest
- General suspected ethical concerns
- Reviewer misconduct
- How COPE deals with complaints



COPE Guidelines

1. Ethical Considerations for Authors

- Ensure originality and avoid plagiarism
- Properly acknowledge sources and contributions
- Disclose conflicts of interest
- Follow ethical guidelines for human and animal research
- Avoid data fabrication, falsification, or selective reporting
- Adhere to journal submission policies (e.g., no duplicate submissions)

2. Responsibilities of Editors

- Ensure a fair and unbiased peer-review process
- Maintain confidentiality of submissions
- Handle ethical concerns, such as plagiarism or research misconduct
- Make objective publication decisions based on quality and relevance
- Respond to allegations of misconduct with due process

3. Role of Peer Reviewers

- Provide objective and constructive feedback
- Maintain confidentiality and avoid conflicts of interest
- Identify ethical concerns (e.g., plagiarism or data manipulation)
- Review in a timely and professional manner

4. Research and Publication Integrity

- Address cases of research misconduct appropriately
- Correct or retract published articles if necessary
- Ensure transparency in funding and authorship