



Typological features of a scientific article

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Lecture 5

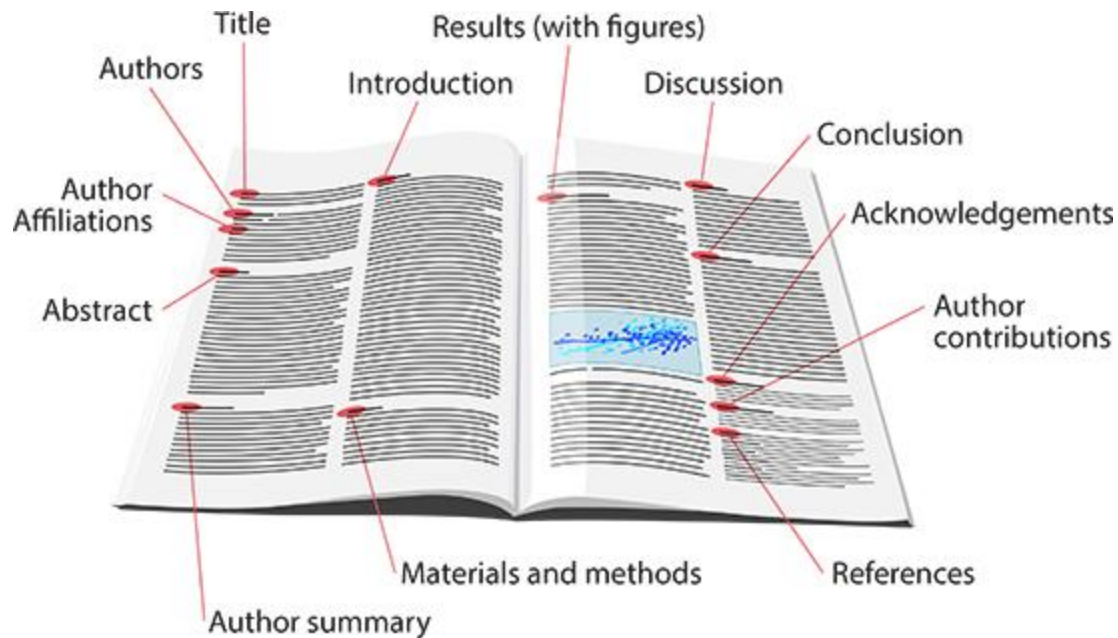
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What is scientific writing?

- **Scientific writing** is a technical form of writing that communicates scientific information to other scientists in a document, book or presentation in written form. It requires a lot of research and exact wording and can include grant requests, peer reviews and summarized findings.



7 features of scientific writing

- 1. Precision
- 2. Clarity
- 3. Peer reviews
- 4. Primary audience
- 5. Formal language
- 6. Organization
- 7. Awareness of existing scientific literature

1. Precision

- Scientific writing relies on unequivocal accuracy, as the mission of a scientific document is to provide relevant and factual information to the scientific community. Precision in scientific literature can take the form of the following writing elements:
- **Objectivity:**
- **Thoroughness:**
- **Exact language:**



High Accuracy
High Precision

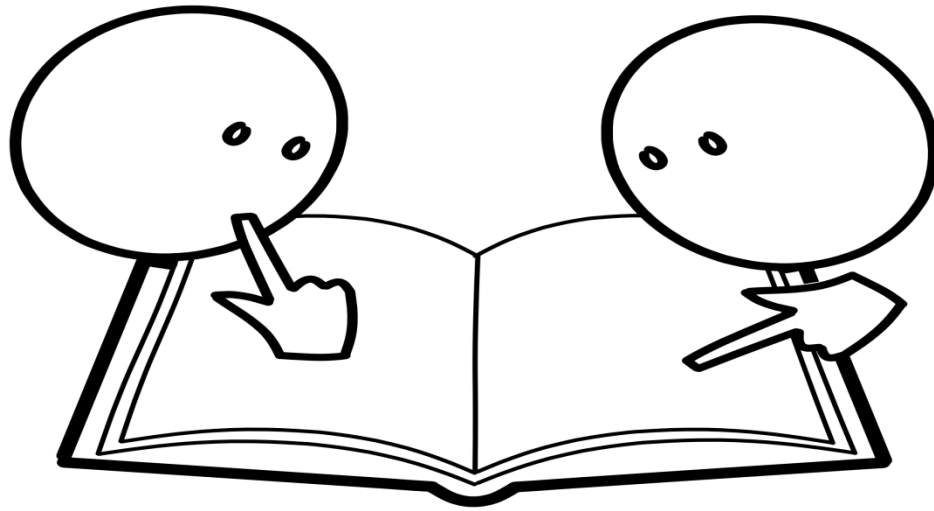
Low Accuracy
Low Precision

2. Clarity

- Scientific writers typically write for their peers, but even scientists expect clarity in the writing. The writer clarifies the meaning of any uncommon terms and summarizes the results of the writing in a way that anyone can understand. Writers explain any experimentation and its results, using the metric system for measurements to ensure consistency and readability for a worldwide audience. Clarity also helps the writer establish a trusted voice within the scientific community.

3. Peer reviews

- Some scientific documents contain peer-reviewed changes or information directly within the document. Colleagues in the same industry often review one another's work to verify the results of experiments, confirm hypotheses or hold one another accountable for honesty and clarity.



4. Primary audience

- A scientific document is almost always for a specific audience. Good scientific writing includes information that applies to the audience and is easy to understand.



5. Formal language

- Keeping language formal in scientific writing helps maintain professionalism on behalf of the writer. Using common language can help appeal to a larger audience, but be mindful of the words and phrases you use in your writing. You can use synonyms for simple words and avoid things such as slang or idioms. Formal language also includes proper punctuation and grammar, so check your work before you submit it.

Formal

- Full sentences ✓
- Correct grammar and vocabulary ✓
- No contractions e.g. I would... ✓
- No idioms ✓
- Passive voice ✓
e.g. The application form is complete.
- No phrasal verbs e.g. To investigate ✓
- No abbreviations e.g. As soon as possible ✓
- No exclamation marks ✓
- No imperatives. ✓
e.g. You may complete the form.

Informal

- Short sentences ✓
- Lack formal grammar and vocabulary ✓
- Contractions e.g. I'd... ✓
- Idioms e.g. On point (good) ✓
- Active voice ✓
e.g. I completed the application form.
- Phrasal verbs e.g. Look into ✓
- Abbreviations e.g. ASAP ✓
- Exclamation marks ✓
- Imperatives (start with a verb) ✓
e.g. Complete the form.

6. Organization

- Scientific papers follow a clear organizational structure. Here's the standard organizational system for a scientific paper:
- **Introduction**
- **Materials and methods**
- **Results**
- **Discussion**
- **Conclusion**

7. Awareness of existing scientific literature

- Most scientific authors express their awareness of the existing body of scientific literature and knowledge pertinent to their studies. Science is a continually evolving field where professionals continually make new discoveries, studies, connections and experiments based on the findings of previous scientists. A scientific author references the existing studies or experiments related to their findings and explains how their research connects to, revises or builds upon previous knowledge.

Tips for scientific writing

Scientific writing is a research-intensive process that requires care and precision. Here are some tips on scientific writing to improve the quality of your work:

- **Increase the precision of your wording**
- **Simplify your word choice when possible**
- **Clarify your objective**
- **Provide logical conclusions**
- **Understand your audience**
- **Review your work**



Thank you for your attention!