

Scientific Publishing

From Writing to Sharing

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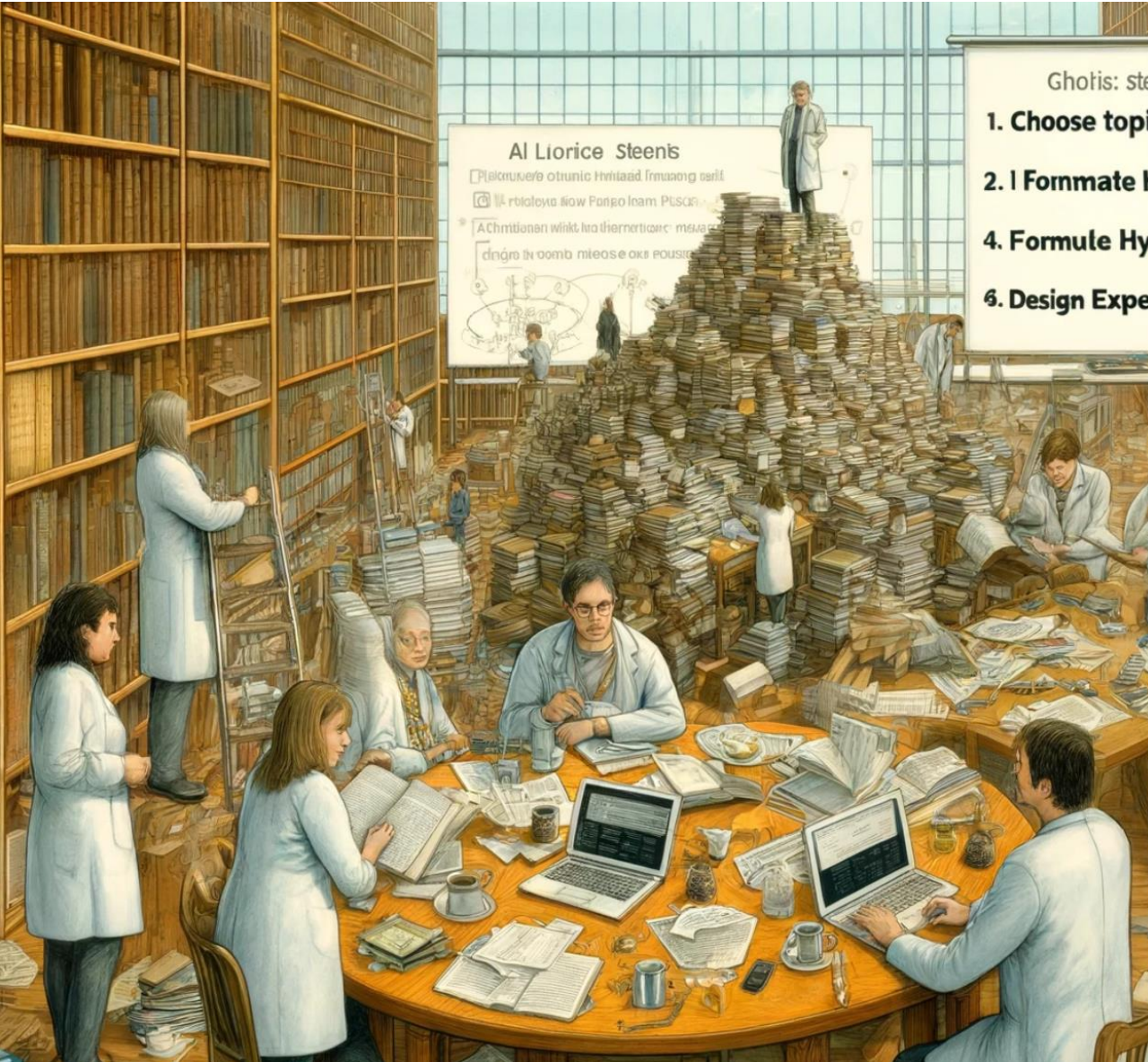
Today's program

| Time | Topic |
|-------------|--|
| 09:00-09:40 | Steps prior to writing a paper |
| | Short break |
| 09:45-10:30 | Grammar & writing style |
| | Break |
| 10:45-11:15 | Tips on the publication process |
| | Short break |
| 11:20-12:00 | Author identification, impact & visibility |

- ➔ You can find the slides of this presentation on our [Lib4RI website](#).
- ➔ Help us improve our courses by providing feedback at the end!

Steps prior to writing a paper

Tell a story!



Content

- 1 Where to start?
- 2 Journal article
- 3 Review article
- 4 Exercise

1 Where to start?

1. Results

- Do not publish just to publish
- Negative results can be published, wrong results not!

Copyright protected material.

Picture:
<https://twitter.com/ContinualAI/status/1635940768086097920>

2. Figures

- Create a document with all figures in the correct order

Copyright protected material.

Figure 1: ...

Figure 2:...

Picture:
<http://phdcomics.com/comics.php?f=1814>

3. Structure of the paper

- create a document with all titles and subtitles

4. Make a plan

- Discuss with supervisors & co-authors

5. Read journal's guide for authors

- e.g. [Elsevier](#)

2 Journal article: structure & content

Title

- o Short & attractive

→ Which title is concise but also includes sufficient information to make the paper stand out?

1. Characterization of a landfill using geophysical data
2. Characterization of a heterogeneous landfill using geophysical data
3. Characterization of a heterogeneous landfill using seismic and electrical resistivity data
4. Characterization of a heterogenous landfill using seismic and electrical geophysical data.

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Picture: <https://www.hwhenvironmental.com/landfills-101/>

2 Journal article: structure & content

Authors – Affiliation

- Who should be your co-author? Who should be the first author?
- Integrity guidelines of the 4 RI: <https://www.psi.ch/integrity/dokumente>
- Use correct affiliation (incl. present address)

Keywords

- General words (e.g., landfills)
- Specific to your research (e.g., MASW)

Highlights

- Short sentences which describe the main findings and motivation of your research ([example](#))

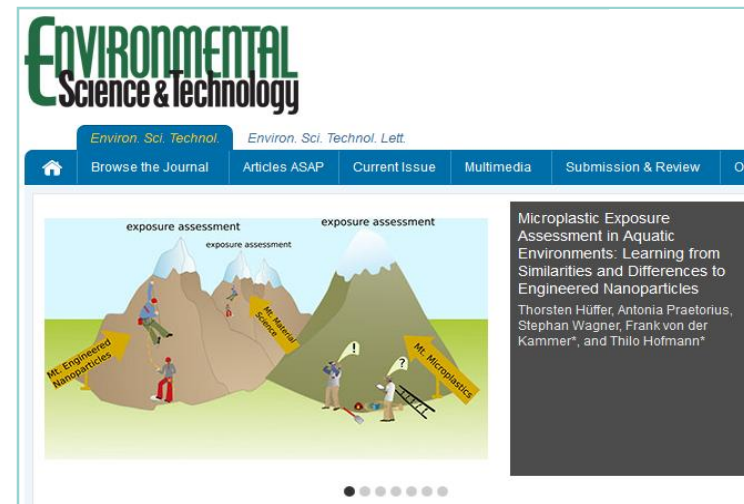
2 Journal article: structure & content

Abstract

- Attract the interest of the reader, do not simply summarize your study
- Three main components:
 1. What is the problem and what is the focus of your paper?
 2. What are the main methods you used?
 3. What are the results? - Simply mention them with no explanation

Graphical abstract

- An innovative [figure](#) to get the interest of the reader



2 Journal article: structure & content

Introduction

- You can fill in several paragraphs by answering the following questions:
 - What is the problem? Explain in detail and use specific phrases to make your point clear.
 - What has been done till now and why is this not enough (gap)?
 - Provide clear objectives of your article. Explain why your paper is innovative.
 - In the end, shortly summarize the content of your paper.

2 Article structure & content

Main body

- Laboratory/field measurements, theory, models, results
- Explain your measurement (theory/model), procedure (parameters) chronologically
- Add information such as time & place

- Describe the figures – be specific in both the main text and the figure caption
- Provide a detailed description – do not assume things are self-explanatory

2 Article structure & content

Discussion

- Short summary of results
 - Interpretation and evaluation
 - Significance
 - Comparison with other studies
 - Limitations
 - Impact and other possible applications of your work
 - Future possibilities – if you already work on them
-
- +
 - Criticism of your own work can help in the reviewing process
 - Helps to connect with your next article

2 Article structure & content

Conclusions

- o Short & precise

If the discussion is thorough, the conclusions can be as short as a paragraph



Acknowledgements

- funding
- software
- help

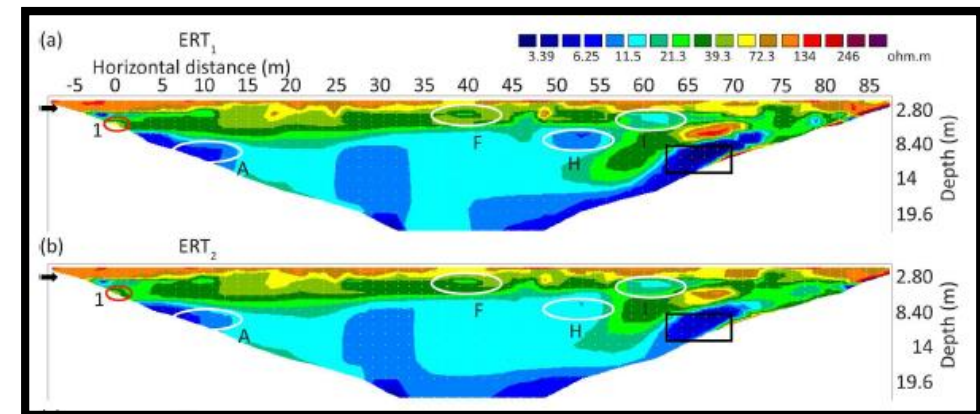
References

- o Use a reference management software
- o Do not cite just to cite
- o Avoid too many self-citations
- o Read the papers you cite

2 Article structure & content

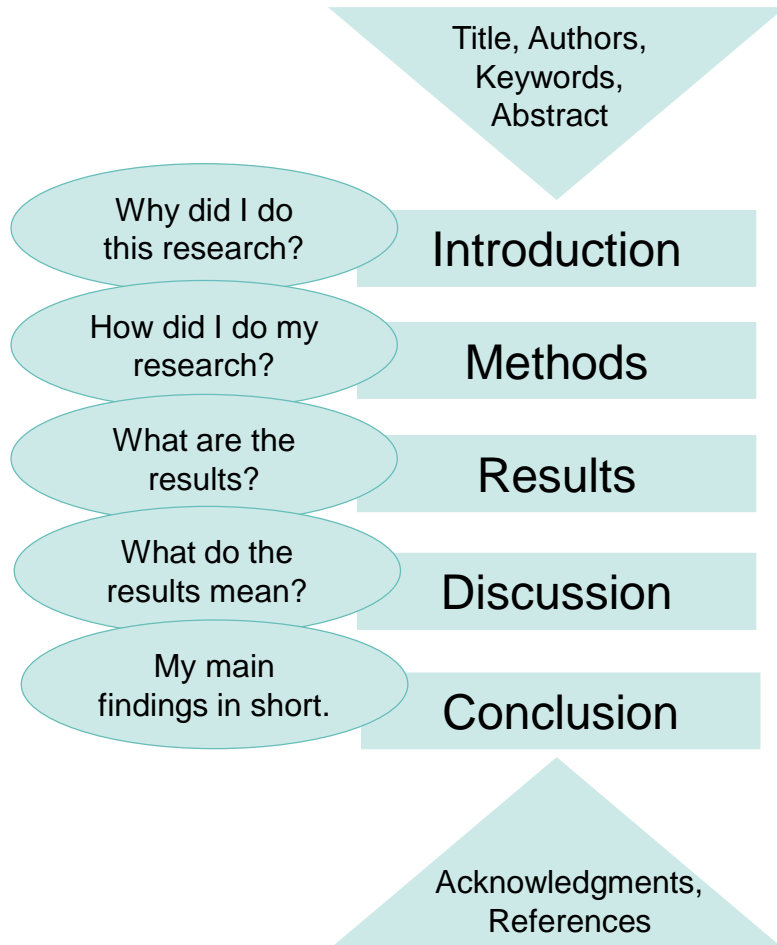
Figures

- Follow the instructions in the authors' guide
- When using figures from other authors, check the copyright (Module 3)
- Compare same things
- Be careful with the color scale



Picture from: Kontantaki, 2016. Doctoral Thesis

3 Journal article vs. review article



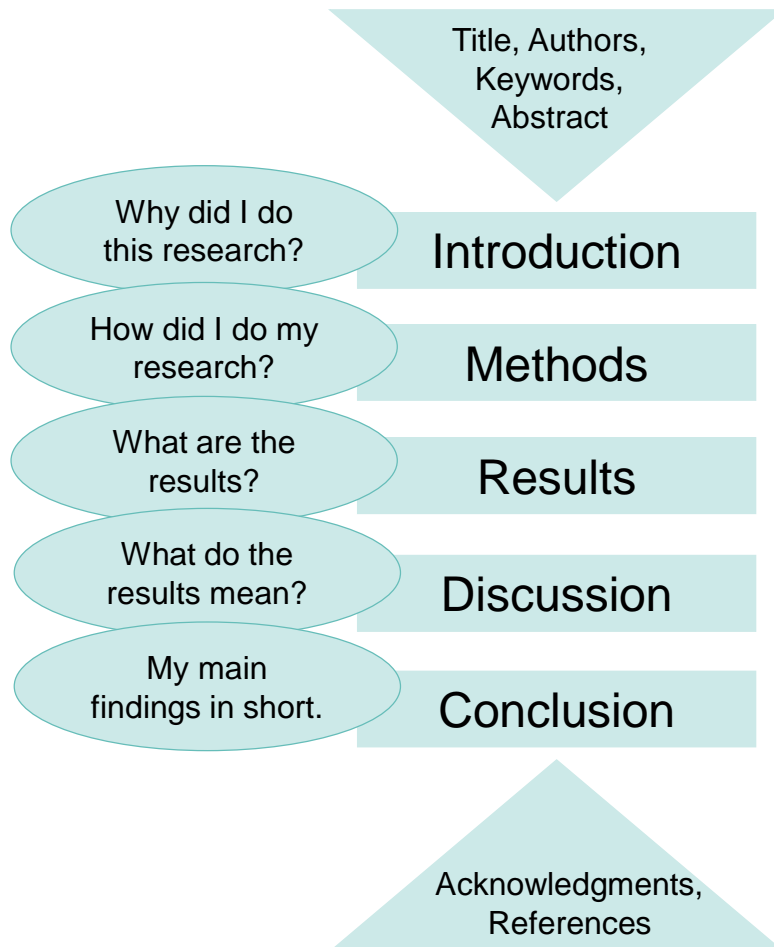
3 Review article

- Usually it does not present new research
- Summary and critical evaluation of another already published article
- Not just an opinion, but a scientific proof of your evaluation of that article

Useful links

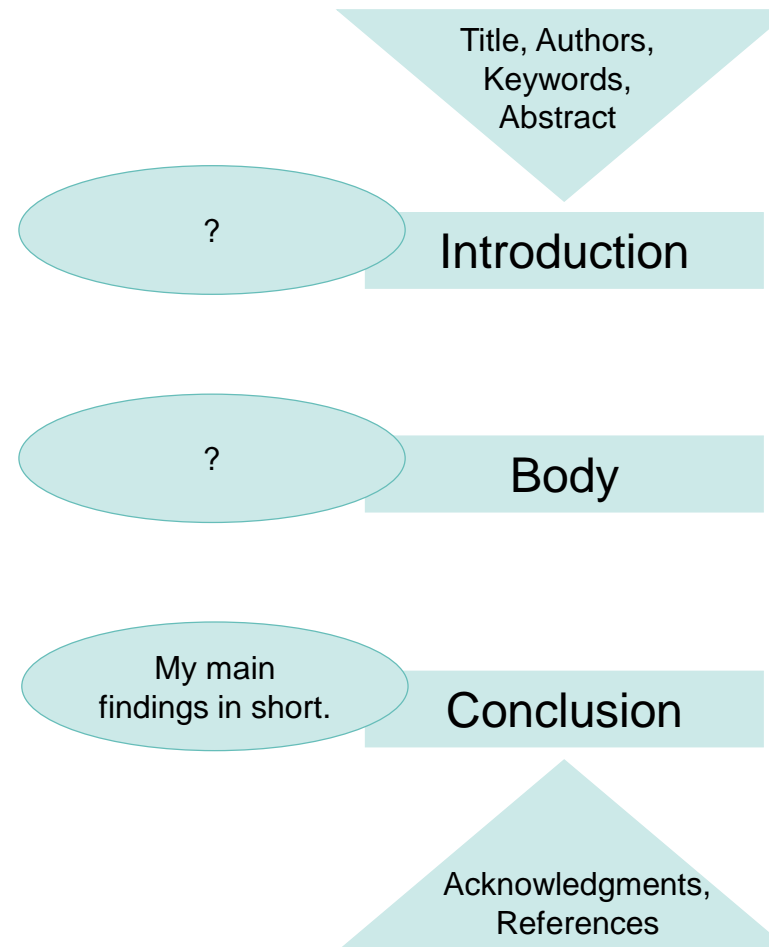
- <https://link.springer.com/article/10.1007/s11747-017-0563-4>
- <https://pdf4pro.com/amp/view/guidelines-review-article-final-eth-z-3b6be0.html>

Journal article



vs

Review article



3 Review article: structure & content

Introduction

- State your topic, summarize the article you review and clearly explain your purpose of writing this review.
- Explain why your review is important for the scientific community.
- Explicitly mention your objectives, main idea and goal of this review.

Body

- Think of it as a “large” discussion part of one of your own articles.
- Do not just summarize the results of the paper, but analyse, critically evaluate and interpret them.
- Create subsections, with specific steps and arguments that will lead to your final conclusion.
- Keep in mind the main idea you stated in the introduction and come back to this through your explanations.

4 Exercise: Elevator pitch

- o Describe your research in one or two sentences

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Some good examples

- o https://graduateschool.nd.edu/assets/76988/elevator_pitch_8_28_2012.pdf
- o <https://academicpositions.be/career-advice/how-to-write-an-elevator-pitch>

Thank you for your attention!

Any questions?

The examples presented in this presentation appear in the publications of: Konstantaki et al., 2016, Geophysics, 81, EN75-EN86; Konstantaki et al., 2015, Geophysics, 80, EN13-EN25; Konstantaki et al., 2015, Journal of Applied Geophysics, 122, 28-39; Konstantaki et al., 2013, Geophysics, 78, EN107-EN116; Konstantaki, 2016, Doctoral Thesis.