



FORHEAL: Forestry Higher Education Advancement in Laos (Erasmus+)  
Scientific Writing in English – National University of Laos, 2020

## **Steps to structuring a science paper (manuscript)**

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## Topics to be covered (Wednesday morning)

1. How to write problem statement
2. Literature review/finding research gaps
3. Reliable sources
4. Common structure of a scientific paper X
5. How to start writing/when to start writing X
6. How to find a good research title? X
7. Background vs. research questions – how wide? X
8. Connecting sections of the article from the beginning to the end X
9. Effective write style



## Before you start

List the main messages of your paper

- E.g. 3-4 main messages



# Key messages: Example

info**brief**

CIFOR *infobriefs* provide concise, accurate, peer-reviewed information on current topics in forest research

No. 114, March 2015 | DOI: 10.17528/cifor/005515 | [cifor.org](http://cifor.org)

## **Making timber plantations an attractive business for smallholders**

Dede Rohadi, Tuti Herawati, Christine Padoch and Digby Race



# Key messages: Example

- Timber plantations generate important additional income for farmers. However, government extension agencies need to encourage farmers to improve their business skills in managing timber plantations
- In Gunungkidul district, Indonesia, where the study was carried out, timber selling contributes about 15% of farmers' total income, but most smallholder timber growers are not market-oriented
- There is a wide range in timber prices at village and district levels, but the farm-gate price generally lies at the lower end of the range
- In order to reduce transaction costs in timber marketing, both central and regional governments need to simplify the regulations for smallholders to trade timber



# How to write a science paper (manuscript)

- Prepare your data and results
  - Figures, tables
- Write the easiest parts first
  - Methods, Results, Discussion, Conclusion
- After that, proceed with more difficult ones



# 11 steps to structuring a science paper

1. Prepare the figures and tables
2. Write the Methods
3. Write up the Results
4. Write the Discussion
5. Write a clear Conclusion
6. Write a compelling Introduction
7. Write the Abstract
8. Compose a concise and descriptive Title
9. Select Keywords for indexing
10. Write the Acknowledgements
11. Write up the References



# The importance of a good title and abstract

- The title and abstract are the most visible parts of your article !!!
- During peer review
  - The title and abstract are used when we invite reviewers. Invited reviewers are asked to decide whether they wish to review the manuscript on the basis of the title and abstract alone
- When the manuscript is published
  - More people will read the title and abstract than the whole article.
  - In fact, many people will only read the title and abstract !!!
  - It is thus important to catch the reader's attention by making the title and abstract as concise, accurate and readable as possible
- People using electronic search engines to find articles
  - Usually they search through databases that contain only the title, author list and abstract of articles



## Abstract - remember its importance

- An abstract is often the first thing people see of your research
- If the abstract is not interesting, many people don't read further
- An engaging abstract will, therefore, strongly influence whether or not your work is further considered by a reader



## The title

- The title is an essential way to bring the article to potential readers' attention, especially in those cases where the database being searched does not include the abstract of the article
- The title must therefore be as accurate, informative and complete as possible



## The title – some tips

- Be as descriptive as possible and use specific rather than general terms
- Use simple word order and common word combinations
- Avoid using abbreviations, they could have different meanings in different fields
- Avoid using acronyms and initials
- Write scientific names in full



## Abstract structure

- Abstracts should have a structured format
- This serves several purposes
  - It helps authors summarize the different aspects of their work
  - It makes the abstract more immediately clear
  - It helps peer reviewers and readers assess the contents of the manuscript



# Some tips on writing abstracts

- Check the abstract length
  - Most cases: Abstracts should not exceed 350 words. Abstracts that are too long lose their function as summaries of the full article, and excess words may be omitted by some indexing services
- Include synonyms for words and concepts that are in the title
- As in the title, use simple word order and common word combinations
- Make sure the most relevant points of the manuscript are included, but be consistent - the abstract should only reflect those points covered in the manuscript
- Minimize the use of abbreviations
- Avoid citing references



# Further tips to help you draft a good abstract

- Consider the reader
  - Always think from a reader's perspective — ensure it's interesting and engaging
- Be clear
  - It should distil the key messages and purpose of your paper, without the need to read the whole article
  - Avoid jargon, uncommon abbreviations and references
- Be precise
  - Choose your words carefully, so that they communicate the exact meaning of your research
  - Can you write things in a more specific way and not lose any content?
  - Get the focus right: The abstract should focus on the key results, whilst only describing experimental details briefly and always end with a concluding sentence



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## Four things to help preparing your draft

1. Think about the topic you want to present, for some days or weeks
2. Make figures and tables, write main messages
3. Then write as quickly as possible, as if thinking out loud. Get everything down, ignoring spelling, grammar, style and troublesome words
4. Correct and rewrite only when the whole text is on paper



# Thank you



Tangkuban Perahu, Java, Indonesia. Photo: M. Kanninen

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