



Basics of writing a research paper

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Standard format of a research paper

A research paper is divided into several sections, each serves a specific purpose, and deviations to this structure are possible, but should be justified:

- Title
- Acknowledgements
- Abstract
- Keywords
- Introduction
- Methods and related works/materials
- Results
- Discussion
- Conclusion
- Literature citation, references
- Appendix



1. Title of the paper

The title of the paper is its most often encountered part : it has great importance in the success of the paper

It should indicate the nature of your research. " Changes in FDI flows" is not as descriptive as "Determinants on FDI inflows in catching up economies."

The content of the title page:

- Research paper title
- Author
- School
- City, state
- Date

The style of the title page:

- Concise, descriptive, and informative
- As short as possible, and should not be complete and balanced, i.e., subject, verb, object arrangement, etc.
- Never containing abbreviations and jargons



2. Acknowledgements

- Acknowledge the assistance of those who helped with your study:
 - Mentors
 - Financial supporters
 - Teachers
 - Scientists
 - Proofreaders
 - Typists, etc.
- Keep this section brief, but be sure to identify major contributions



3. The abstract

A good abstract enables the reader to identify the basic content of the study quickly and accurately

The content of abstract:

- It should state the principal objectives and scope of the investigation
- It should summarize the results and principal conclusions
- It may include a short description of the method (no details), advantages over existing methods



3. The abstract

The style of abstract:

- It must be concise, not exceeding 250 words, usually in a single paragraph
- Together with the title it must be self-contained as it is often published separately from the paper (on the web)
- Omit all references to the literature and to tables or figures, abbreviations and acronyms, any sort of illustration, figure, or table, or references to them
- Use the active voice when possible, but much of it may require passive constructions
- Usually the abstract is written in the present tense



4. Keywords

- The keywords should not only be taken from the title
- Provides the ease to put the paper to the right scientific category
- Use JEL categories



5. Introduction

This section presents the background knowledge necessary for the reader to understand why the findings of the paper are an advance on the knowledge in the field.

The content of the introduction:

1. The introduction describes first the accepted state of knowledge; then it focuses more specifically on a particular aspect of the paper
2. It answers the following question:
 - What problem did you investigate?
 - Why did you choose this subject, and why is it important?
 - What hypotheses did you test?
 - Based upon your reading, what results did you anticipate, and why?



5. Introduction

The style of the introduction:

- State objectives clearly
- Why is this work necessary/interesting/useful?
- The motivation behind it
- What are the preliminaries/put your work in context
- Cite the important literature (if you have no related work section)



6. Methods and related works/materials

Steps of this section:

- First, establish the context by providing a brief and balanced review of the published literature available on the subject
- Summarize what we knew about the specific problem before the study was done
- Provide general review of the primary research literature (with citations) but do not include very specific, lengthy explanations
- Objectively state the drawbacks of existing methods and why you have to look for other solutions



6. Methods and related works/materials

Content of this section:

- How did you conduct your study?
- What methodological approach was chosen?
- Why? Its advantages and drawbacks over the existing ones

The style of this section:

- Relate your procedures to someone's else
- Write this section in a narrative, paragraph format, not as a list of numbered steps
- Do not include any results
- Do not list the materials separately, but they should be included in the description of the methods
- Use figures, if appropriate, using a standard method cite the literature reference



Data

- Source of data
- Selection of data
- Raw data and transformed data
- Data analysis
- Data presentation



7. Results

The content of this section:

- This section is to present the results of the research
- Analyze your data, then present them in the form of figures (graphs), tables, and/or descriptions of observations. Figures are preferable to tables, and tables are preferable to straight text
- Describe the relationship of each section of converted data to the overall study
- Present the results of your research in a logical order
- Do not draw conclusions and don't interpret the text in this results section. Reserve data interpretation for the discussion



7. Results

The style of this section :

- Raw data are never included in a scientific paper unless they are needed to give evidence for specific conclusions
- The table or figure should then be presented, complete with title
- Explain in the body of the text the important features of each tables and figures
- All converted data go into the body of the report, after the methods and before the discussion
- Do not stick graphs or other data onto the back of the report just because you printed or prepared them separately
- Place raw data at the back of the report as an appendix, if needed



8. Discussion

Interpret your data and findings related to data and the issue in the discussion section.

The content of the section is based on answering the following questions:

- What do your results mean?
- Are data consistent with your initial hypothesis? Do data support or reject your hypothesis?
- How do your results compare with the results of other scientists performing similar experiments?
- What conclusions can be drawn from the results of your work? If there are ambiguities in your results, what further research needs to be performed? What are possible directions for future research?
- What are the theoretical implications or practical applications of your work?



8. Discussion

The methodology of the section:

- Decide if each hypothesis is supported, rejected, or if you can not make a decision with confidence
- Explain all of your observations as much as possible, focusing on mechanisms
- Distinguish data generated by your own studies from published information or from information obtained from other students
- Refer to work done by specific individuals (including yourself) in past tense
- Refer to generally accepted facts and principles in present tense.



9. Conclusions

What do you conclude, based upon your work and reading on this topic? Wrap up your paper with a brief summary of your conclusions.

The content of this section:

- Reach conclusions about the initial objectives (therefore we call the section "Conclusions")
- Show advantages of your method over previously published methods
- State open problems, cases your method does not or insufficiently work
- Identify needed next steps in research on the problem

If the last two points make up more than one paragraph, put them in a separate section entitled "Future Work".



10. Literature citation, references

When you refer to the work of another scientist in your paper, you must indicate the source of that information.

The content of citation:

- The preferred method of citing a reference in text in most scientific papers is the author-date system.
- The citation (author last name and year of publication) should be placed naturally into the flow of the sentence.
- The most common method of listing articles is to place them in a "Literature Cited" section at the end of the paper.
- All literature cited in the body of your paper must be listed in your Literature Cited section, and all references in the list must be cited in the text.
- Sources not actually cited should not be included in the Literature Cited section



10. Literature citation, references

Style of citation:

- References should be listed in alphabetical order, according to the first author's last name
- All types of references should be lumped together before you alphabetize--do not make separate lists for books, articles, etc.
- References should be single spaced and left justified, with additional lines indented five spaces (1/2 inch). Double-space between references.
- Works by the same person should be arranged chronologically by the date of publication (Ejffinger 1997) or (Ejffinger, 1997a)
- Required fields of most common entries:
 - » article (an article in a journal): authors, title, journal, volume, number, pages, year
 - » in proceedings (a paper in conference proceedings): authors, title, book title, pages, year
 - » in book : author or editor, title, publisher, year



Literature search

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- Search.epnet.com – EBSCO Research Databases
- ScienceDirect
- www.ingenta.com
- www.sourceoecd.org



11. Appendixes

- Put all raw data, background charts and tables to the Appendix
- Put all textual descriptions, background materials falling out of the scope of the paper to the Appendix
- Limit the size of the Appendix



+1. General concluding remarks on...

The style of the paper:

- Use active form (simpler, easier, stronger)
- Never use contractions (e.g., it's, can't, ...)
- Present tense should be used to report background that is already established.
- Use future tense for work that you will do.
- Use past tense to describe results of a specific study, especially your own.

The captioning:

Captioning is a method of separating the body of a paper into sections

- Headings show organization and identify the topic for a section or a block of information.
- Capital letters, underlining, point size, and position on the page help to differentiate rank or level.



+ 1. General concluding remarks on...

The presentation:

- All images, figures, tables, etc. must be labelled and referenced in the text
- All images, figures, tables, etc. must have a caption describing what they are there for
- No paragraph should have only one sentence
- Use a spellchecker (however, do not rely on the spellchecker, it does not find every mistake and be careful with "replace all")
- Use simple formulations and short sentences, if a sentence can be broken into two, do it.



The problems in homework proposals

What are the problems of the proposals that form the basis for the later papers?

- Sometimes the topic is not appropriately selected
- No links between the referred literature and selected topic
- The literature is given, background is given, as well as methodology but no aim is specified
- The cause and causation are sometimes mis-specified



Thank you for your attention!

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