# Workshop Penulisan Artikel Jurnal Internasional

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FT Universitas Negeri Semarang, 29 April 2015



### Scientific Paper vs. Popular Science Paper

Scientific Paper	Popular Science Paper		
New knowledge	Knowledge review		
Enable others to repeat and/or extend experiment	Arouse interest		
Logical and clear (IMRAD-format)	Teach or influence reader		
Technical terms	Illustrations and headings as a tool to facilitate reading and understanding		

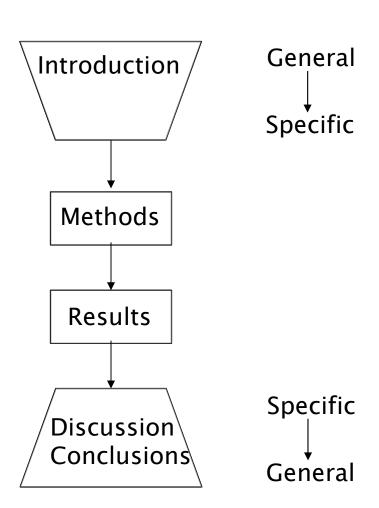
### Types of articles in social sciences

- Empirical studies:'Original research', test hypotheses
- Literature reviews: organizing, integrating, and evaluating previously published material to clarify a problem
- Methodological articles: focus on methodological or data analytic approaches and introduce empirical data only as illustrations of the approach (e.g. Erickson, 2006)
- Case studies: reports of case materials obtained while working with an individual, a group, or an organization

## Structure of a scientific paper

#### **IMRaD**

- Introduction
- Method
- Results<sup>a</sup>
- Discussion<sup>b</sup>
- Conclusions
- a Results and discussion
- b Discussion and conclusions



#### Introduction

- Clear rationale:
  Why is this issue/study important?
- Literature review (can be a different section): what is known, what is not known How does the study relate to earlier studies? How does the study differ from and/or build on earlier studies?
- What are the questions/objectives of the study?

#### Method

- The method describes how the study was conducted, including conceptual and operational variables used in the study
- Different types of studies will rely on different methodology. Therefore, a complete description of the method enables the reader to evaluate the appropriateness of the methods.
- A good description of method allow others to replicate the study

#### Results

- Early note: some journals use 'results and discussion – conclusions and implication'; 'results – discussions, conclusions and implications'
- Report the data in sufficient detail to justify conclusions.
- Mention all relevant results, including those that counter to expectation

#### Results

- Graphs and tables can speak for themselves.
- Do not repeat in words everything that the tables/graphs convey → point out key findings and offer some text that complements the findings
- Clear graphs are essential. Do not put too much info on the graphs. The labels/legend are not too small
- Check the resolution of figures and tables

#### Discussion

- Do not restate the results
- The discussion section should answer why we obtained the observed results.
- Evaluate and interpret the implication of the results
- ▶ Draw inferences and conclusions from the results → answer the questions

#### Conclusions

- Clearly point to the true significance of the findings, but do not overstate them
- Refer (back) to the main references to strengthen the conclusions
- Acknowledge limitation of the study; address alternative explanations of the results
- Highlight how the study contributes to the current knowledge
- Further study

#### **Title**

- Summarize the main idea
- It should identify the variables or theoretical issues under investigation and the relationship between them
- A good title is easily shortened to the running head within the published article
- Recommend length: no more than 12 words

#### **Abstract**

- Objective method results conclusion
- The abstract should describe the problem and summarize the major points
- The abstract can be read on its own (readers understand the abstract without knowing the details of the research)
- Never refer to figures/tables in the abstract
- Most journals: about 200 words

#### **Abstract**

#### A good abstract is:

- Accurate: the abstract correctly reflects the purpose and the content of the manuscript
- Non-evaluative: report rather than evaluate; do not add to or comment on what is in the body of the manuscript
- Coherent and readable: Written in clear and concise language.
- Concise: Be brief and make each sentence informative.

## Language (General)

- Consistency: British English vs. American English → check the targeted journal
- First person sentence? → it is debatable → check the journal
- ▶ Quotation mark → check journal
- Clear and concise
- Avoid unnecessarily long paragraphs. Break up paragraphs into smaller, useful units

# Language (Specific)

	Introduction	Methods	Results	Discussion/ Conclusions
Present tense	High	Low	Low	High
Past tense	Mid	High	High	Mid
Passive voice	Low	High	Variable	Variable
Citations	High	Low	Variable	High
Qualifications	Mid	Low	Mid	High

#### Introduction

- The introduction often includes several verb tenses.
- Present tense:
  - when stating a fact that is widely accepted
  - when a specific result, figure, or paper is the subject of a sentence.
- Present perfect tense: when referring to a previous study with results that are still relevant. This tense demonstrates that the action occurred in the past but still applies in the present.
- Past tense: when referring specifically to the methods used in a previous paper

#### Method

- The methods section should use the past tense because it is a report of what was done during the course of the study.
  - e.g. "the nurse collected the blood sample of the patients"
- When one action occurred before another, the past perfect tense can be used to indicate the earlier action.
  - e.g. "patients who had elected to undergo surgery completed questionnaires."
- When one action occurred while another was ongoing, the past progressive is used
   e.g. "while patients were preparing for surgery, nurses collected baseline samples"

#### Results

- The results section is largely written using the past tense because the experiments described in the text were completed before the paper was written.
- In certain cases, the present tense is needed. e.g. when the subject is figure: "Figure 1 shows our fluorescence data"

#### **Discussion & Conclusions**

- Use past tense when referring to specific results or methods
- Use the present when presenting conclusions
- The discussion/conclusions may include the future tense if directions for additional research

#### **Abstract**

- The verb tense chosen for the abstract should be based on the section of the text to which each sentence corresponds.
  - Introductory part describing the study uses the present tense
    - e.g. The present study reports/describes/...
  - Descriptions of the methods and results should use the past tense.
    - e.g. Data were analyzed by ...
  - Conclusions use the present tense.
    - e.g. Our results suggest that ...

#### **Title**

- The title does not need to be a complete sentence, and no verb is necessary.
- In cases where a complete sentence is appropriate, use the simple present tense



## Are we ready to submit?

- As a final step after completing research paper, edit, edit, edit. Identify and correct mistakes that we may have made
- Proofread: both the content and the language
- Format: e.g. APA style
- Check references: citation ←match→ list
- Acknowledgment(?)
- Prepare version for blind review

## Choosing the right journal ...

- http://www.scimagojr.com
- ▶ Right journal → fits with our material and/or strategy:
  - Aim and scope
  - Preferred research method
  - Ethics: references to articles published in the targeted journal
- Read the 'Instruction for authors'!
- Never submit to multiple journals simultaneously

#### Education

- Journal of Vocational Education and Training. United Kingdom.
- Empirical Research in Vocational Education and Training. United States.
- International Journal for Educational and Vocational Guidance. Netherlands.
- Asia Pacific Education Review. Netherlands.
- Asia Pacific Journal of Education. UK

## Teknik Sipil & Bangunan

- Journal of Materials in Civil Engineering. United States.
- Journal of Computing in Civil Engineering. United States.
- Journal of Civil Engineering and Management. Lithuania.
- <u>Civil Engineering and Environmental Systems</u>. United Kingdom.
- Civil Engineering. United States.
- KSCE Journal of Civil Engineering. South Korea.
- Archives of Civil Engineering. Poland.
- International Journal of Civil Engineering. Iran.
- Asian Journal of Civil Engineering. Iran.
- Civil Engineering Practice. United States.

#### Teknik Arsitektur

- Journal of Architectural Engineering. United States.
- Architectural Engineering and Design Management. United Kingdom.
- Journal of the Institution of Engineers (India):
   Architectural Engineering Division. India.
- Architectural Engineering, Building Integration Solutions. United States.
- <u>Research in Architectural Engineering Series</u>.
  Netherlands

#### **Teknik Otomotif**

- Qiche Gongcheng/Automotive Engineering. China.
- Review of Automotive Engineering. Japan.
- Automotive Engineering International.
   United States.

#### Teknik Mesin

- Chinese Journal of Mechanical Engineering (English Edition). China.
- Mechanical Engineering. United States.
- Archives of Civil and Mechanical Engineering. Poland.
- Advances in Mechanical Engineering. United States.
- Frontiers of Mechanical Engineering. United States.
- International Review of Mechanical Engineering. Italy.
- International Journal of Automotive and Mechanical Engineering. Malaysia.
- International Journal of Mechanical Engineering Education. UK.
- Mechanics and Mechanical Engineering. Poland.

#### Teknik Elektro

- Computers and Electrical Engineering. United Kingdom.
- International Review of Electrical Engineering. Italy.
- <u>Electrical Engineering</u>. Germany.
- Journal of Electrical Engineering. Slovakia.
- <u>Turkish Journal of Electrical Engineering and Computer Sciences</u>. Turkey.
- International Journal of Electrical Engineering Education. United Kingdom.
- International Journal of Engineering Intelligent Systems for Electrical Engineering and Communications. United Kingdom.
- Journal of the Institution of Engineers (India): Electrical Engineering Division. India.
- Journal of Electrical Engineering and Technology. South Korea.
- International Journal of Electrical Engineering. Taiwan.
- International Journal on Electrical Engineering and Informatics. Indonesia.

## Teknik Informatika & Komputer

- Canadian Conference on Electrical and Computer Engineering. United States.
- <u>Canadian Journal of Electrical and Computer</u>
   <u>Engineering</u>. Canada.
- Advances in Electrical and Computer Engineering. Romania.
- Iranian Journal of Electrical and Computer Engineering. Iran.
- Journal of Electrical and Computer Engineering. US.

## PKK Boga

- Trends in Food Science and Technology. United Kingdom.
- Journal of Food Engineering. United Kingdom.
- Journal of Food Protection. United States.
- <u>Critical Reviews in Food Science and Nutrition</u>. United Kingdom.
- Journal of the Science of Food and Agriculture. United Kingdom.
- Journal of Food Science. United Kingdom.
- Food Research International. United Kingdom.
- Food Additives and Contaminants. United Kingdom.
- Food Quality and Preference. United Kingdom.
- Journal of Food Composition and Analysis. United States.
- Food Control. Netherlands.
- Innovative Food Science and Emerging Technologies. Netherlands.
- International Journal of Food Science and Technology. United Kingdom.
- Food Technology. United States.

#### PKK Busana

- International Journal of Clothing Science and Technology. United Kingdom.
- Clothing and Textiles Research Journal. US.
- <u>Textile: The Journal of Cloth and Culture</u>. United States.
- World Clothing Manufacturer. United Kingdom.
- The Science of Clothing Comfort. UK.

#### Teknik Kimia

- Industrial and Engineering Chemistry Research. United States.
- Journal of Industrial and Engineering Chemistry. South Korea.
- <u>Chemical Engineering Science</u>. Netherlands.
- Chemical Engineering Journal. Netherlands.
- Computers and Chemical Engineering. Netherlands.
- Chemical Engineering and Processing. Netherlands.
- Chemical Engineering Research and Design. United Kingdom.
- Chemical Engineering and Technology. Germany.
- <u>Reviews in Chemical Engineering</u>. Germany.
- Advances in Chemical Engineering. United States.
- Chemical Engineering Education. United States.
- Asia-Pacific Journal of Chemical Engineering. United Kingdom.

