

# How to write a scientific paper in ISI journals

**Prof. Chaiyuth Chinnarasri**

**Water Resources Engineering Research Center (WAREE)  
King Mongkut's University of Technology Thonburi**



## What is a scientific paper?

- A written and published report describing original research results.**
- The first publication of original research results.**
- In a journal available within the scientific community.**

## Manuscript structure

**Title + Authors**  
**Abstract + Keywords**  
**Introduction: Literature reviews + Objectives**  
**Methodology: Theory + Experiments**  
**Results: Graphs + Tables**  
**Discussion**  
**Conclusions**  
**Acknowledgements**  
**References**  
**Tables**  
**Figure caption + Figures**

## Getting start

- Research interests and Research topic.**
- Research fund and Equipment**
- Mentor?**
- Review of pertinent literature.**

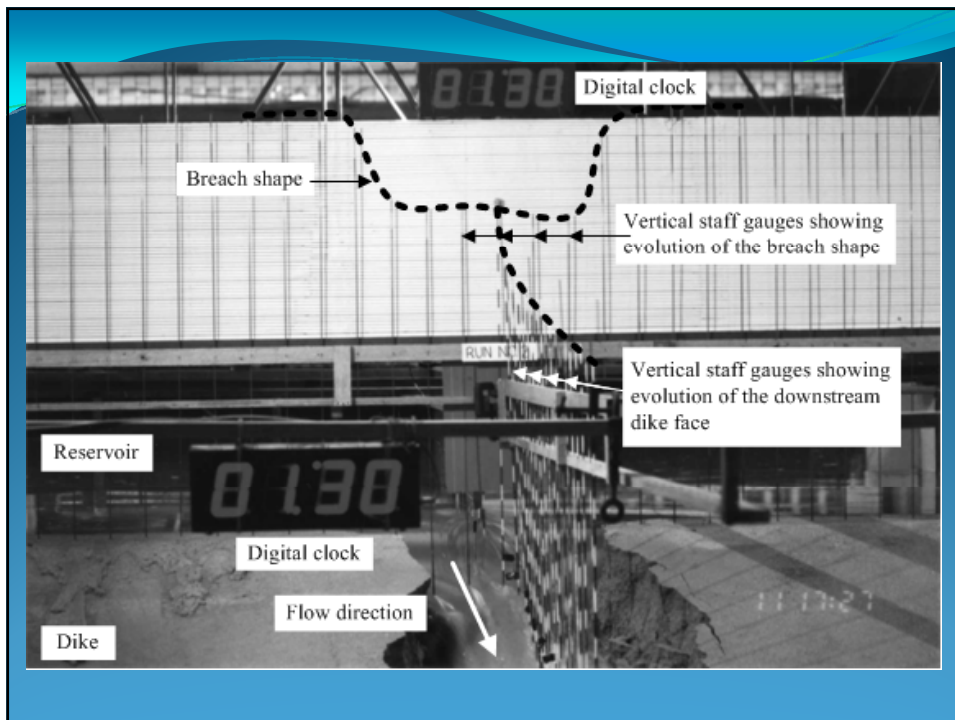
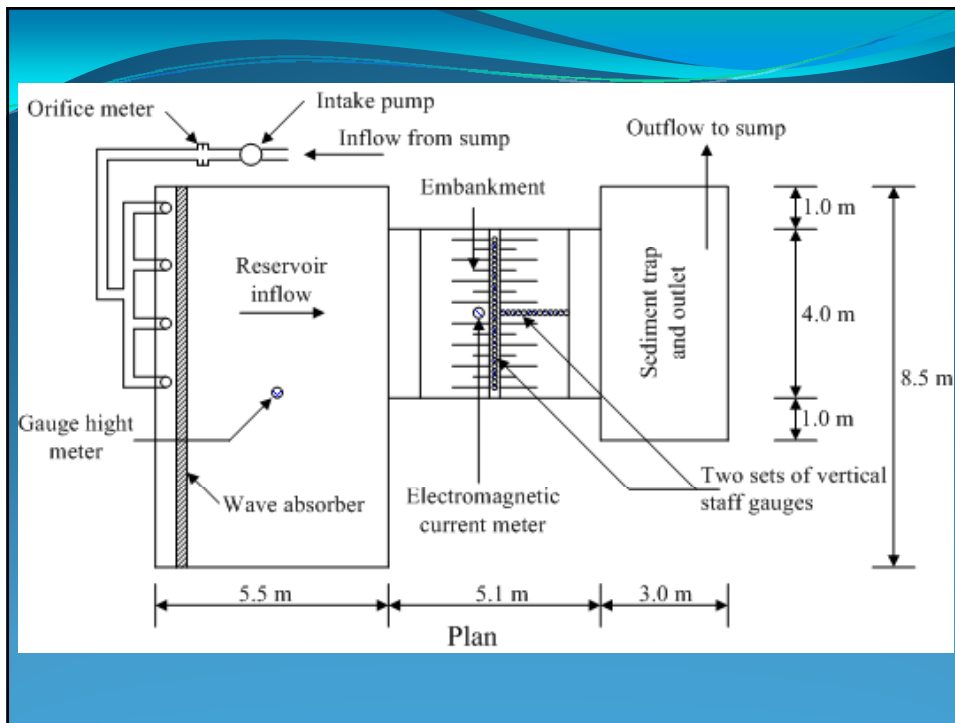
## Methodology

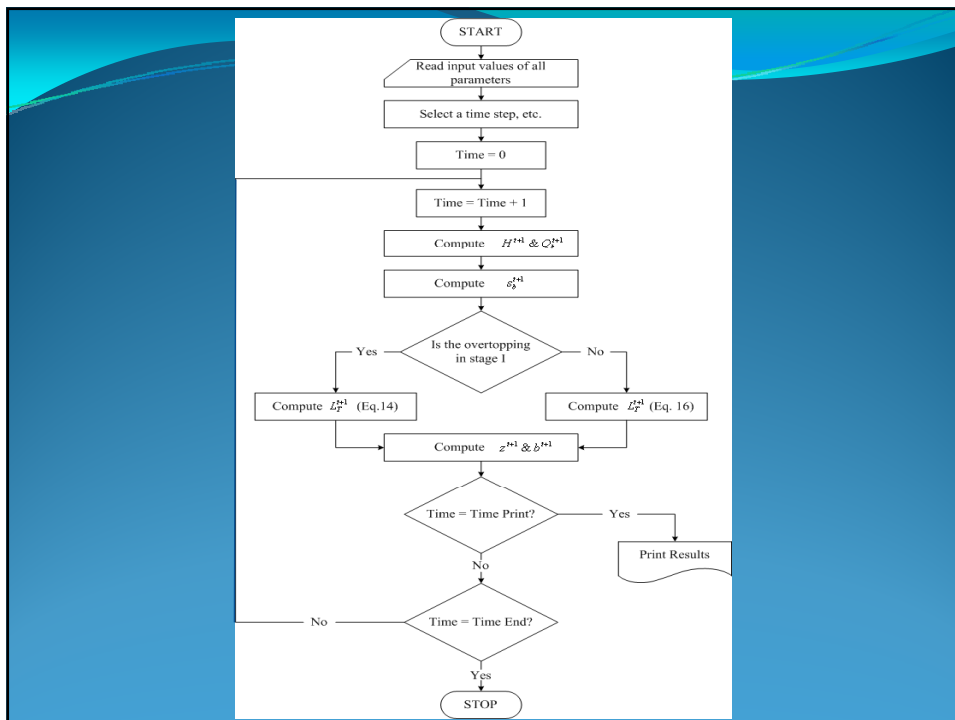
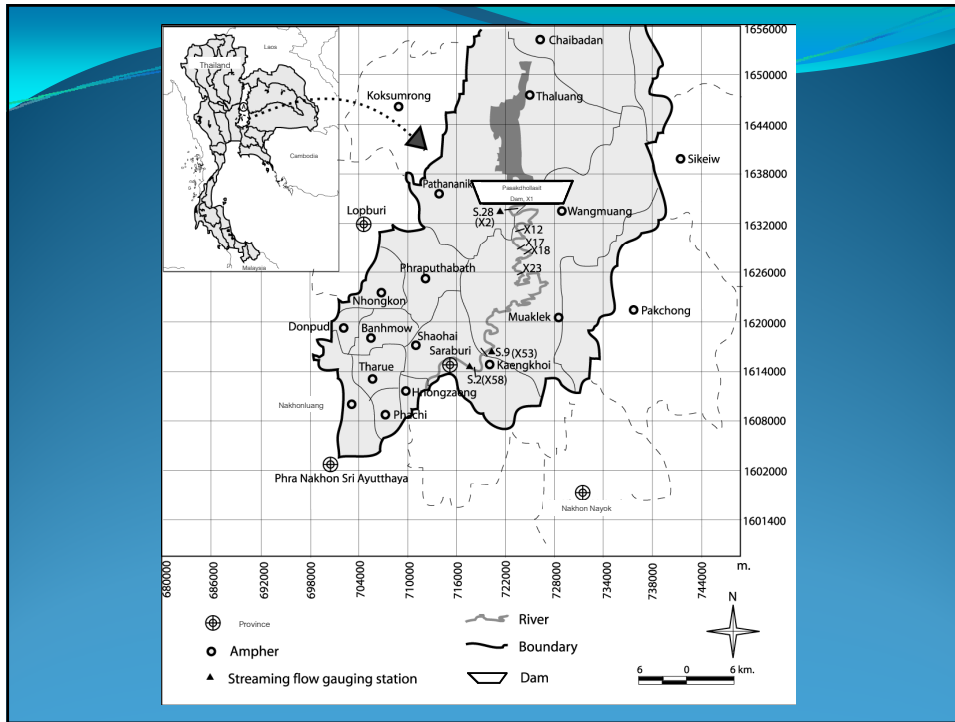
- ❑ **How was the problem studied?**
- ❑ **Writing when experiments still in progress.**
- ❑ **Detailed enough so results can be repeated by others.**

## Methodology (Cont.)

### **Use descriptive subheadings**

- **Sample preparation techniques**
- **Field site description**
- **Equipment and its use**
- **Data collection**
- **Data analysis techniques**
- **Computer programs used**





## Results

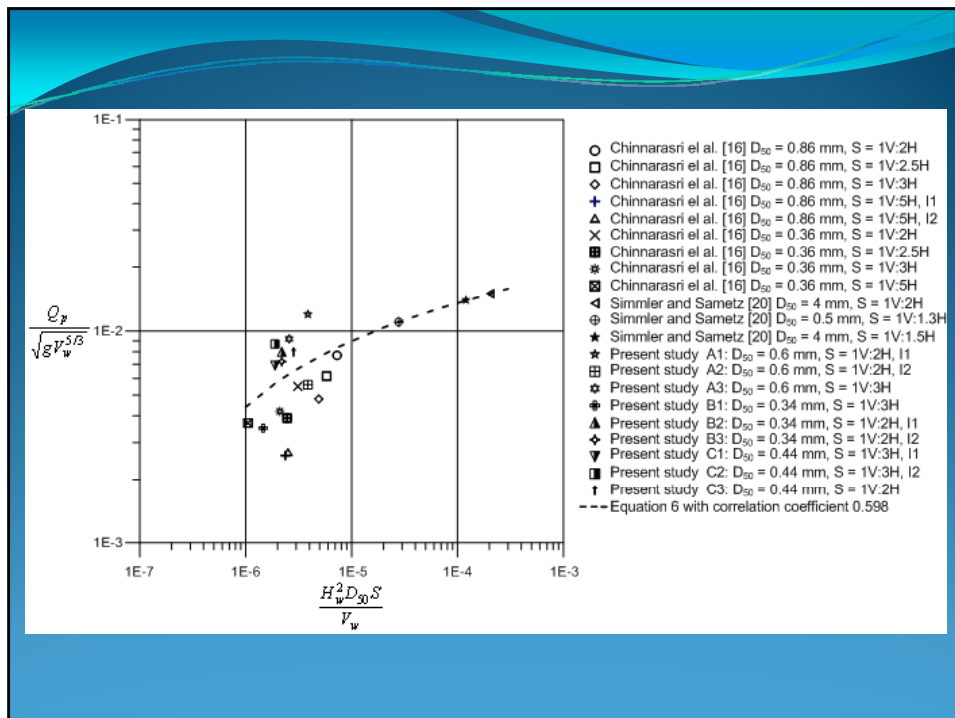
- ✓ **What are the findings?**
- ✓ **Present main findings referring to tables/figures.**
- ✓ **Tables and figures must be straight forward and concise**
- ✓ **Do not speculate or over discuss results.**

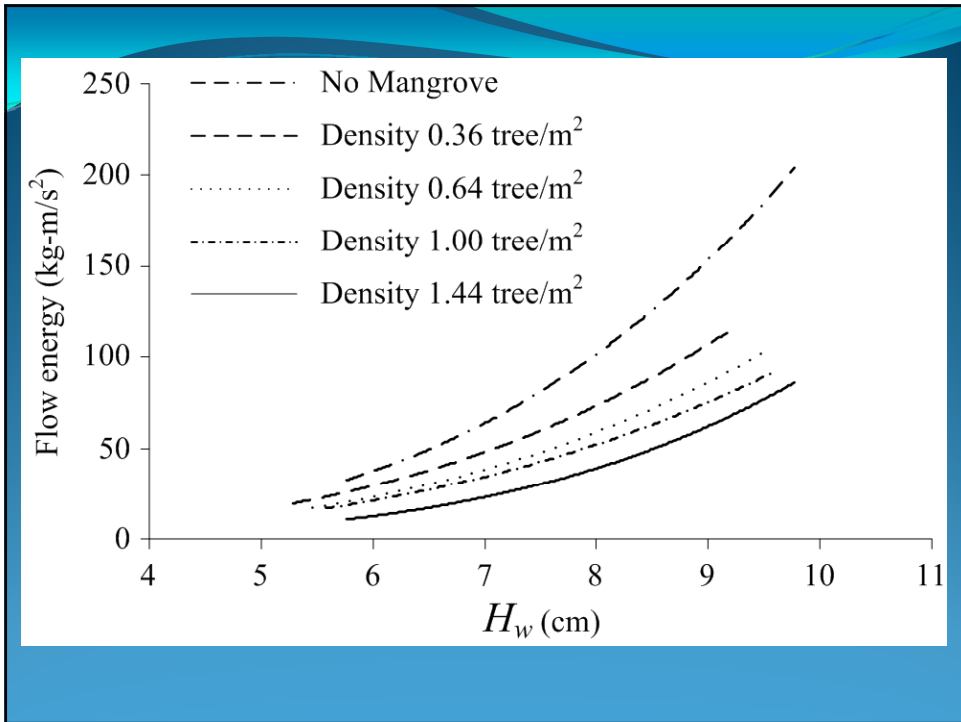
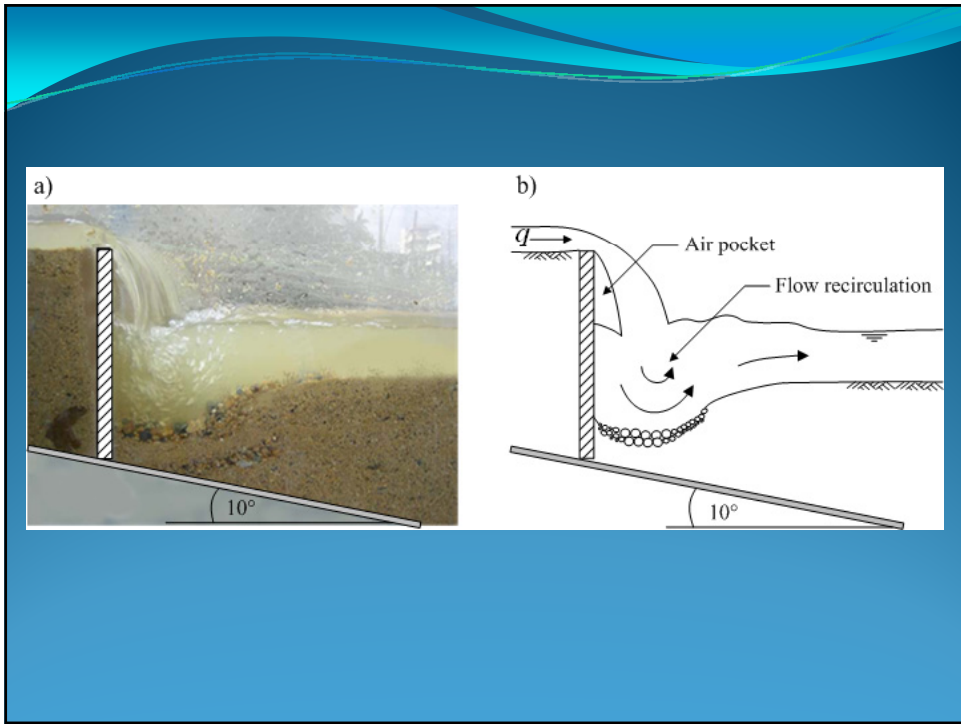
## Tables

- **Use tables only if text will not suffice.**
- **Design tables to be understandable without the text.**
- **Use the same format of table.**

# Figures

- High resolution.
- Avoid including too much information in one figure.
- Make sure any lettering will be large enough once published.







## Introduction

- **Provide background needed to understand the paper and appreciate its importance.**
- **Build case for why study is important/necessary.**
- **Identifies the question the research addressed.**

## Introduction (Cont.)

- **Should be moving from general to specific.**
  - **Broad information on topic – Review the previous studies.**
  - **Narrow background information – Need for the present study.**
  - **Focus of paper – Hypothesis and clear purpose.**

## Discussion

- **What do these findings mean?**
- **Interpret results**
  - **Did the study confirm/deny the hypothesis?**
  - **Did the results provide an alternative hypothesis?**
  - **Do the results agree with other research?**
  - **Implications of study for field.**
  - **Suggestions for improvement and future research.**

## Discussion (Cont.)

- **Discuss weaknesses and discrepancies**
- **Explain what is new without exaggerating**
- **Do not repeat results**
- **Answer the question stated in the introduction**
- **Relate the results to existing knowledge**
- **Do not compare your results with ambiguous data sources**
- **Limitations of the study**

## Conclusions

- ❖ **1<sup>st</sup> paragraph: What you did?**
- ❖ **2<sup>nd</sup> paragraph: State the important results.**
- ❖ **3<sup>rd</sup> paragraph: Identify future research directions.**

## References

- **Relevant and recent.**
- **Should reference for peer-reviewed journal articles.**
- **Do not misquote.**
- **Use correct style for journal.**

## Example of references

- **Stahl, D. C., Wolfe, R. W., and Begel, M. (2004). “Improved analysis of timber rivet connections.” *J. Struct. Eng.*, 130(8), 1272-1279.**
- **Garrett, D. L. (2003). “Coupled analysis of floating production systems.” *Proc., Int. Symp. on Deep Mooring Systems*, ASCE, Reston, VA, 152-167.**

## Abstract

- **Critical part of paper – widely read.**
- **State main objective.**
- **Describe the methods used.**
- **Summarize most important results.**
- **State major conclusions and significance.**

## Abstract (Cont.)

- **Should not include figures, tables, and references.**
- **Avoid abbreviations.**
- **Write and rewrite until flawless.**
- **About 150 words.**

## Title

- **The fewest possible words that adequately indicate the contents of the paper.**
- **Will determine whether paper gets read.**
- **Avoid abbreviations.**
- **Should not include extra words, such as “a study of.....”.**
- **Important in literature searching.**
- **Contain keywords.**

## Keywords

➤ **The words that relate to particular topic and accepted by the community.**

➤ **Examples:**

**Bridges**

**Dam safety**

**Embankment**

**Site investigation**

**Composite structure**

**Dynamics**

**Numerical analysis**

**Soil stabilization**

## Authors

- ❑ **Those with important intellectual contributions to the work.**
- ❑ **Often listed largely from greatest contributions to least.**
- ❑ **Head of research group often is listed last ??**
- ❑ **Important to list one's name the same way from paper to paper.**

## Acknowledgements

- **Thank people who helped with the work but did not make contributions deserving authorship.**
- **Appreciate the sources of financial support.**

## Revises the manuscript

- **All authors should participate.**
- **Review order of data presentation.**
- **Polish the writing style.**
- **Double check references.**
- **Double check spelling.**

## Develop a good writing style

- ✓ **Read well written articles.**
- ✓ **Consult with mentor.**
- ✓ **Try to get good writers to review.**
- ✓ **Learn from editing changes.**

## Submission

- Read instructions carefully.**
- Fill out all necessary forms:**
  - Copyright transfer
  - Conflict of interest
- Write cover letter.**
- Confirm receipt after a few days.**



## Peer review

- ❑ **Act as a filter: ensures research is properly verified before being published.**
- ❑ **Improves the quality of the research: rigorous review by other experts helps to hone key points and correct inadvertent errors.**

## After submission

- 1) **Editor assigns reviewers.**
- 2) **Reviewers decide on whether to review paper.**
- 3) **Two or three reviewers inspect and edit.**
- 4) **Revision and resubmission.**
- 5) **Editor decides on accuracy of revisions and whether to accept paper.**
- 6) **Possibility of second review process.**
- 7) **Publication.**

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**Submissions Needing Revision for Author Chaiyuth Chinnarasri**

Click 'File Inventory' to download the source files for the manuscript. Click 'Revise Submission' to submit a revision of the manuscript. If you Decline To Revise the manuscript, it will be moved to the Declined Revisions folder.

IMPORTANT: If your revised files are not ready to be submitted, do not click the 'Revise Submission' link.

Page: 1 of 1 (1 total submissions) Display 10 results per page.

Action	Manuscript Number	Title	Initial Date Submitted	Date Revision Due	Current Status	View Decision
<a href="#">Action Links</a>	WATER-D-07-nn142	Maximum scour depth downstream of head sills	23 Aug 2017	24 Dec 2017	Revise	<a href="#">B2 - inv. to revise and resubmit for refereeing</a>

Page: 1 of 1 (1 total submissions) Display 10 results per page.

<< Author Main Menu

## Responding to reviewers

- Carefully prepare your responses:**
  - Each comment should be addressed
  - Each change should be stated
  - Be enthusiastic
- Reviewers may be wrong.**
- Do not respond to reviewers while upset.**
- Never call the editor.**
- Get help from other authors.**

## Absolutely rejected

- ❖ **Not sufficiently novel.**
- ❖ **Poor experimental design:**
  - **Poor controls + bad data.**
  - **Hypothesis not mentioned and not adequately tested.**
- ❖ **Misquote or omit pertinent references.**
- ❖ **Inappropriate for journal.**
- ❖ **Results and discussion confusing.**

## What constitutes a good journal?

### **Impact factor :**

**average number of times published papers are cited up to two years after publication.**

### **Immediacy Index:**

**average number of times published papers are cited during year of publication.**

## Journal Citation Report, 2009

<b>Nature</b>	<b>34.48</b>
<b>Science</b>	<b>29.747</b>
<b>Journal of Hydraulic Engineering</b>	<b>1.478</b>
<b>Hydrological Sciences Journal</b>	<b>1.418</b>
<b>Engineering Journals in Thailand</b>	<b>0</b>

**Thank you very much for your attention**

