

# Writing Thesis -II

# Thesis

- Acquisition and dissemination of new knowledge
- Demonstration that suitable and systematic methods were used to evaluate the chosen hypothesis
- "new" is not just new to the researcher, but also new to the community
- PhDs were sometimes in the past failed

# Must

- Knowledge, understanding, and appreciation of the field
  - This will show motivation relevance to X, Y.
- Critical analysis of related work.
- Importance (relevance) of own work.
  - an incremental improvement on the state of the art
  - evolution on existing work

## Beware

- appearing to be too original
- don't appear to have missed or ignored existing work.

# Thesis is Not

- "a diary of work done".
- "a collection of papers".
- a big 3rd year project
- “a lone journey”.
- Contribution of experienced supervisor
- you are too involved and therefore you have the worst Judgment on what is good or bad
- you *must* get external advice

## Remember

- Thesis is designed for the benefit of the reader, not the writer  
So get lots of people to read your thesis

# Thesis Layout

Should have an odd number of chapters, between 5 and 9

## Abstract

### 1. Introduction

- Set the scene and *problem statement*. Introduce structure of thesis, state contributions (3-5).

### 2. Background

- Demonstrate wider appreciation (context). Provide *motivation*. The problem statement and the motivation state how you want the PhD to be judged - as engineering, scientific method, theory, philosophy, &c.

### 3. Related Work

- Survey and critical assessment. Relation to own work.

### 4-6. Analysis, design, implementation and interpretation of results

### 7. Critical assessment of own work

- State hypothesis, and demonstrate precision, thoroughness, contribution, and comparison with closest rival.

### 8. Further Work

### 9. Summary Conclusions

- Restate contribution

### Appendix

### Bibliography

# note

- Average, good, size for a thesis is 150 pages
- 50 extra pages for a big appendix and bibliography
- Don't write long and boring doctorates
- 2-3 conference, or 1-2 journal papers
- Places are good enough for chapters 4,5,6,
- Publication is a VERY good defense
- feedback from reviewers is extremely helpful
- so all PhD students should be trying to publish their work
- The feedback is even more useful when your submissions don't get published
- Always think - Presentation. Be precise in all things
- Statement of the problem, the solution, methods and frameworks. Thoroughness == scientific method.
- An odd number of (total) chapters gives a balanced appearance

# Title Page

Title (including subtitle),

Author

Institution

Department

Date of delivery

Research mentor(s) and advisor

their institutions and email addresses

**RECONSTRUCTION OF LAST GLACIAL - HOLOCENE CLIMATIC / OCEANOGRAPHIC  
CONDITIONS OF SOUTHEASTERN ARABIAN SEA**

**Thesis submitted for the Award of the Degree of**

***Doctor of Philosophy*  
in Marine Geology**

**(Faculty of Science)  
Mangalore University**

**Researcher  
V. YOGANANDAN**

**Under the Supervision of**

**Dr. H. GANGADHARA BHAT  
Reader  
Department of Marine Geology  
Mangalore University  
Mangalagangothri**

**March 2008**

# Abstract

- Length should be ~ 1-2 paragraphs, approx. 400 words.
- Abstracts generally do not have citations.
- Information in the title should not be repeated.
- Be explicit.
- Use numbers where appropriate.
- Answers to these questions should be found in the abstract:
  1. What did you do?
  2. Why did you do it? What question were you trying to answer?
  3. How did you do it? State methods.
  4. What did you learn? State major results.
  5. Why does it matter? Point out at least one significant implication.

# *Introduction*

- Know the content of the thesis
- Keep a hook for reader
- Create interest to reader
- Cite previous research
- Most recent and relevant work
- Why more work was necessary
- Your work

- Why the study was undertaken
- Sufficient background information to understand context
- Proper acknowledgement of the previous work on which you are building
- All cited work should be directly relevant to the goals of the thesis
- Explain the scope of your work
- A verbal "road map" or verbal "table of contents"
- Introductory material ("old stuff") ends and your contribution ("new stuff") begins?