Report Writing Chapter 5 Research Fundamental

Ashim Khadka

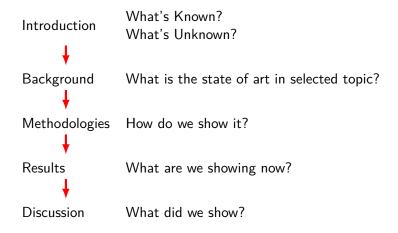
Outline

- Structure of Report Writing
 - Introduction
 - Background and Literature Review
 - Research Questions/Problem Statements
 - Methodology
 - Evaluations and Discussions
 - Conclusions
 - References
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Structure of Report Writing

Structure of Report Writing



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- General introduction: what is the research about
- Summarize: research questions/problems
- Indicate: why this is a worthwhile problem
- Give an overview of your contribution (solution, experiment and main results/conclusions)

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- Did you briefly introduce your solutions and contributions?
- Did you highlight the novelty?

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Background and Literature Review

- Give the background to let the readers know and understand your topic & the knowledge of this area
- The state of the art; related work, existing research
- Organize these by logical and reasonable ideas, not simply by time/author, etc

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- Organize these by logical and reasonable ideas, not simply by time/author, etc
- Is the background clear enough?
- Is the literature review well organized and enough?

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Research Questions/Problem Statements

- Concise statement: problems you want to address
- Justified problem: unanswered/not well solved based on the previous literature review
- Thoroughly discuss: why it is worthwhile to solve this problem?

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- Did you refer to some literature references to convince your points?

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- Main purpose: to convince the examiners: you have answered the solved the problem by your own solutions
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Methodology

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- Show prior & current methodologies/work to your solution
- Can readers clearly understand your solutions?
- Did you mention the experimental conditions and limitations?

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- Analyze: your experimental results and evaluate your assumptions/performance of solutions
- Focus on the positive contributions of the results, also explain the negative results
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- Did you thoroughly
 - evaluate the experimental results?
 - discuss the relevant issues, such as limitations, flaws, etc?

• **Conclusions:** short concise statements about the results of work you have done; must be directly relevant to the problem you raised in this research

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 - Original? Novel? Thorough? Meaningful?
- Future research: let other researchers pick up relevant work and follow your tracks
 - Feasible? Reasonable?

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References

References

- Closely tied to the literature reviews in previous sections
- Examiners usually scan this list looking for important works in the field, which may be considered as a preliminary assessment
- Do not just list them, make sure you have referred them in the main body!
- Organize order of citation in your research: according to refereed reference style

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Abstract

- General introduction of the background
- Briefly introduce the problem you want to address
- Summary of your solution and methodologies
- State a bird view of your results/conclusions
- Highlight your novel ideas and main contributions

Presentation

Presentation

- Introduction with problem statement
- Objectives
- Research question (if necessary)
- Summary of literature review with research gap select baseline literature
- Methodology: Choice of Algorithms with reasons
 - why do you choose and how does it differ from the state of the art?
- Block diagram with an explanation of each block
- Data collection (How many? and from where?)
- Expected outcome (with example)

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