



Topic 8: Write a Research Proposal

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- The Role of a Research Proposal
- The Structure of a Research Proposal
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The Role of a Research Proposal

- Unless present an acceptable proposal research will never effectuate
 - Supervisor and academic committee
- Once accepted, it serves as a contract among
 - Student, supervisor and academic committee
 - Student, client and sponsor



The Structure of a Research Proposal (1)

- Title
- Introduction
- Aims and objectives
- Intellectual challenge
- Research method and technology



The Structure of a Research Proposal (2)

- Milestones
- Deliverables
- Collaboration with industry
- Resources
- Schematic plan



The Structure of a Research Proposal (3)

- Title
 - Clear and concise
 - Highlights research objects and characteristics
 - No more than 25 Chinese words
 - Avoid using acronyms if possible
 - Examples
 - MEASUR and RUP Based Business Modeling Method for Information Systems



The Structure of a Research Proposal (4)

- Introduction
 - Briefly describe
 - The reason to choose the title
 - The first paragraph of the first part
 - The general area and the specific problem
 - The second and third paragraph of the first part
 - Why the title is important and prior research
 - The fourth, fifth and sixth paragraph of the first part
 - An overview of the industry involved
 - Provide overall background of research



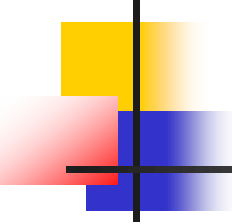
The Structure of a Research Proposal (5)

- Aims and objectives
 - Aims (goals) identify at the highest level what intend to achieve
 - The last but one sentence in the last paragraph of the first part
 - Objectives are sub-goals to achieve aims
 - More precise
 - Appear in chronological order
 - Three sentences before the last but one sentence in the last paragraph of the first part



The Structure of a Research Proposal (6)

- Help reviewers to clarify
 - What can be achieved with the research
 - Whether all expected have been achieved



The Structure of a Research Proposal (7)

- Intellectual challenge
 - Identify aspect(s) requiring further investigation
 - The research content in the second part
- Emphasize contribution the research will make
 - The contribution in the second part



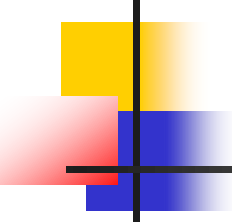
The Structure of a Research Proposal (8)

- Research method and technology
 - Identify the method(s) and technologies to employ
 - The method and technology in the second part



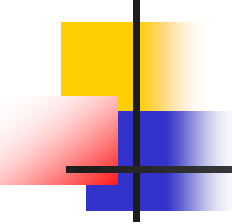
The Structure of a Research Proposal (9)

- Milestones
 - Help to appreciate progress by providing intermediate reference points
 - Can be objectives or breakdown of the objectives



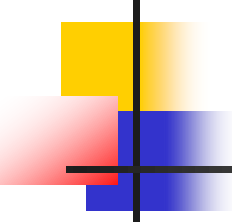
The Structure of a Research Proposal (10)

- Identify milestones
 - Focus on work breakdown structure of research
 - Identify any key stages appearing to be significant breakthroughs in research progress
 - At the top level of the work breakdown structure, use some (if not all) of objectives as milestones
 - The number of milestones vary depending on the research duration
 - The fourth part



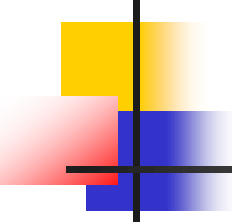
The Structure of a Research Proposal (11)

- Deliverables
 - Identify precisely what intend to be submitted at the end of the research
 - Thesis/Dissertation
 - Research report
 - Program and user documentation
 - Model or algorithm
 - The expected research results in the third part



The Structure of a Research Proposal (12)

- Collaboration with industry
 - Analyse or solve real problems for real organizations (clients)
 - Clients may suddenly change their support or require different outputs needed to satisfy academic degree
 - Must provide analyses and findings meeting academic requirements



The Structure of a Research Proposal (13)

- Resources
 - Identify any resource requirements (human, finance, material and data)
 - Budget table in the fifth part
 - Member list in the sixth part
 - Point out resources to which have access already clearly
 - Technology roadmap in the second part



The Structure of a Research Proposal (14)

- If any resource is unavailable
 - The proposal will be unacceptable
 - Change focus or direction of the proposal
- Schematic plan
 - A general overview is all required
 - Limit to a single page
 - The fourth part



Avoid Pitfalls

- No clear statement of objectives
- No context information
- Too many technical jargons
- No clearly phased plan
- Lack of consistency among: aim(s), objectives and plan



Discussion

- According to the structure of a research proposal, explain the structure of the case proposal