

Methodology

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Workshop on Research Grant Proposal Writing: Attaining Essential Quality for Success, Research Clusters, IPPP, University of Malaya, 06 Nov 2019

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- **Very important** part of research proposal → should receive a lot of attention
- Explain clearly **how** you will conduct your study
 - enable reviewers to **evaluate** the work to be performed
 - permit others to **replicate** your study
- **Balance** between **brevity and completeness**

Research design and methods:

- Overall design
 - Methods and techniques
 - Methods of analysis
 - Risks, anticipated pitfalls, and plans to overcome
- >
- Proceed from broad to specific
 - Provide context is before specific details are raised
 - Use flow chart to explain overall methodology as necessary

Purpose of Research Design / Methodology

- outlines *How* the research will be conducted
- identifies *what* type of data will be collected
- identifies *how* the data will be collected
- identifies *how* the data will be analysed
- states any *limitations* in regard to size of the project, the time available etc.

- Methodology section can be difficult and complicated → Use several *subsections* to make it easy to follow
- Be *specific* about the means of evaluating data, conducting the analysis
- *Justify* and explain your *choice* of methods and parameters
- If new, risky or *unorthodox* methods are proposed → include *adequate justification*, cite references
- *Anticipate questions* / objections of reviewer → provide answers pre-emptively as far as possible
- Make evident *connections* between research *objectives* and research *methods*

- Clear and sufficiently complete → others could repeat the work
- Assemble a simple collection of procedural outlines → turn this into prose
- Use future tense in methodology section in the proposal
- Provide references as necessary
- Use subheadings if necessary
- Do not include results in Methods
- Use figures to illustrate and clarify methods

- For chemicals → exact technical specifications, source or method of preparation
→ Avoid trade names of chemicals
- Describe statistical tests & comparisons made
- For every result there must be a method

Reviewers:

- Will study methodology carefully
- Decide whether the results can be trusted or not
- Can reject based on methodology

Example from FRGS Detailed proposal of research project

(a) Research background including Hypothesis /Research Questions and Literature Reviews

(b) Objective(s) of the Research

(c) Methodology

Description of Methodology

Flow Chart of Research Activities (Please enclose in the Appendix)

Gantt Chart of Research Activities (Please enclose in the Appendix)

Milestones and Dates

(d) Expected Results/Benefit

Novel theories/New findings/Knowledge

Research Publications

Specific or Potential Applications

Number of PhD and Masters (by research) Students

- **Timeline** detailing projected sequence and interrelationship of major tasks gives reviewer **assurance**:
 - investigator is capable of careful step-by-step planning
 - work will be done in efficient and feasible manner
- Be as detailed as possible about the schedule of the proposed work.

Gantt Chart

A simple Gantt chart

- Lists project activities and milestones against a timeline
- Give 10-15 activities

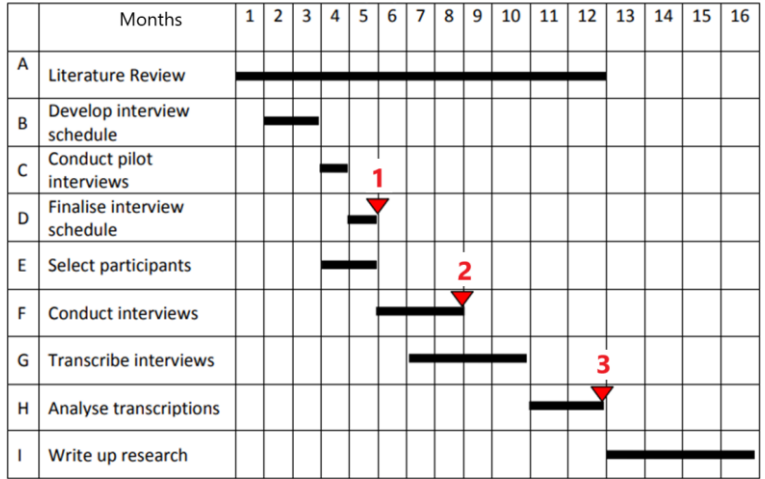
	Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	Literature Review	—————															
B	Develop interview schedule		—————														
C	Conduct pilot interviews				—————												
D	Finalise interview schedule					—————											
E	Select participants			—————													
F	Conduct interviews					—————											
G	Transcribe interviews							—————									
H	Analyse transcriptions										—————						
I	Write up research													—————			

▼ = Milestones

Milestones

Signposts along the route to project completion

- help to monitor progress
- measure how far we have come / how near we are to completion
- written as if it is achieved



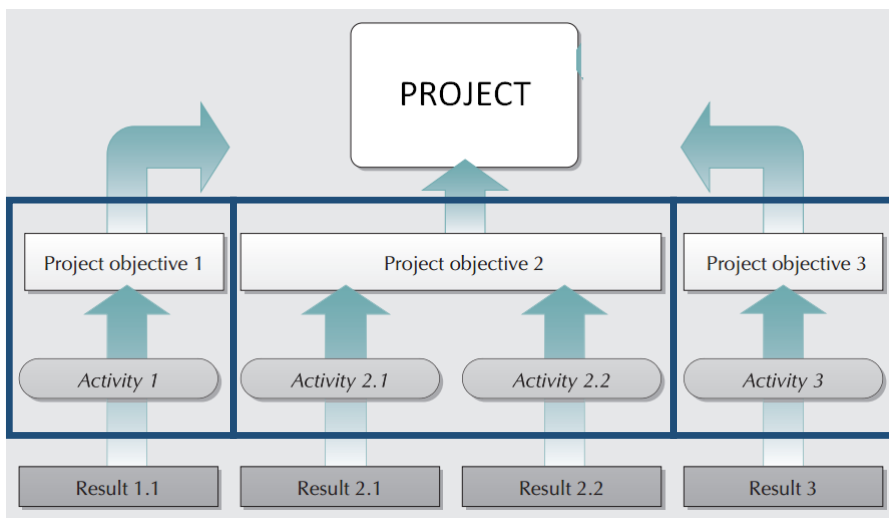
▼ = Milestones

Milestone 1: Interview schedule finalised

Milestone 2: Interviews complete

Milestone 3: Analysis of transcriptions done

Each objective can be broken down to activities



Summary