Basics of writing a research proposal

Ketkesone Phrasisombath

MD, MPH, PhD (candidate)

Faculty of Postgraduate Studies and Research University of Health Sciences

Geneva Foundation for Medical Education and Research Training Course, Vientiane, Laos 23 September, 2009

Contents

- 1. What is a research proposal?
- 2. Outline of research proposal
- 3. Writing a research proposal
- 4. Ethical considerations
- 5. Work plan
- 6. Budget

End of this session

Participants are able to:

- state and define the concept of writing a research proposal
- 2. develop a research proposal
- 3. prepare appropriate work plan, ethical clearance and budget.

What is a research proposal?

The research proposal is a piece of document which states:

- 1. What the proposed research is about.
- 2. What it is trying to find out or achieve.
- 3. How you will go about doing that.

4. It is also **an argument which needs to** demonstrate rationality.

- 5. So argue to convince the audience of the merits of your proposal, don't just describe.
- 6. It needs to be a 'stand alone' document it will be read by people who have not discussed the work with the researchers.
 7. Therefore, anticipate questions and answer them.

The audience will have 3 main questions when they read the proposal:

Is the research worth doing?
 Is the research design coherent?
 Can the researcher carry out it?

Proposal as a means of communication

The proposal is a **communication to** those who give approval and disburse budget. Therefore the proposal must be **clear and comprehensive.**

- □ Keep it terminology free
- Use few abbreviations and acronyms
- Don't assume previous knowledge
- Avoid spelling errors
- Be concise and make your sentences understandable on first reading

Proposal as a Plan

□ The proposal is a **plan of action**.

An adequate proposal sets forth the plan in step-by-step detail.

All empirical research consists of a careful, systematic and planned investigation of some restricted set of phenomena.

Proposal as a contract

- A completed proposal approved by a research or funding committee constitutes an agreement.
- Research design can not be changed when the approval is done.
- There are some constraints on the degree to which we can plan things.

Outline of the research proposal

- Table of contents
- Abstract/Summary
- 1. Introduction
 - Background to the research
 - Statement of value and rationale for the research study
 - Literature review
 - Conceptual framework

- 2. Research questions and research objectives
- 3. **Research methods**
 - Study type and data collection procedures
 - Sampling strategy and sample size
 - Plan for data collection
 - Plan for data analysis
 - Plan for dealing with threats to trustworthiness
 - Ethical considerations

4. Work plan or project management

- Staffing and work plan, including timeline
- Administration and monitoring
- Plan for utilization and dissemination of results
- 5. Budget
 - Itemized budget
 - Budget justification

Annexes

Annex 1 References Annex 2 List of abbreviations and acronyms Annex 3 Interview guidelines, observation check-list, etc.

Writing a research proposal

In general we consider:

- 1. Explain the approach you have adopted.
- 2. Make absolutely clear that a particular design is appropriate to your purpose and research questions.
- 3. Describe what you will do from the start to the finish of your research. If there is a need for **flexibility**, state what and why.

- 3. **Build a framework**. Present a conceptual framework that helps to explain and clarify your proposed design.
- 4. Articulate the parts. Take special care at each step to write brief but explicit explanations of how the parts fit together– purpose with questions, framework with questions, questions with sampling and methods.
- 5. Plan for trustworthiness. Readers will invariably ask, "Why should I believe you?"

- 6. Are your **personal biases** a threat? If not, why not? If they are, how will you deal with them?
- 7. **Illustrate analyses.** Discuss your plans for analysis, giving practical examples where possible.
- **8. Plan for records.** Explain how you will manage the data or a paper trail.
- **9. Don't anticipate findings.** Be careful about using language that appears to anticipate a finding.

Ethical considerations

People who are asked to participate in a study have a right to know:

What it fully involves.
What implications there are for them or others close to them.
How it could effect them negatively or positively.

- Participants should be informed of the research purpose and of their role in terms of time and effort.
- Participants should be informed of procedures used to protect their anonymity.

In experimental studies, participants should receive an explanation of all treatment procedures to be used (discomforts or risks involved).
 Procedures used to protect well-being should be fully explained.

- Participants should be told what benefits they will receive if they participate in the study.
- Participants should be fully instructed that they are free to withdraw their consent to participate in the study at any time without the need to justify the decision and without prejudice.

Participants should be offered the opportunity to receive feedback about the results of the study.

Work plan

What is a work plan? A work plan is a schedule, chart or graph that summarizes the different components of a research project.

What should be included in the work plan?

- □ The tasks to be implemented.
- □ The start and end date of each task.
- Research team, assistants, supporting staffs.
- Number of working days per person, etc.

The Gantt Chart

What is The Gantt Chart?

The Gantt Chart is a planning tool which shows graphically the order in which various tasks must be implemented (done) and the duration of each activity

Example of a Gantt Chart

Tasks to be performed		Person assigned	June	Jul	Aug	Sep	Oct	Nov	Dec
1.	Finalized research proposal	Research team	✓						
2.	Train research assistants and pretest instrument	Principal invest. and research team		✓					
3.	Data collection	Research team		\checkmark	\checkmark				
4.	Prepare for data entry	Hire one statistician			\checkmark				
5.	Data cleaning and preliminary analysis	Principal invest. and statistician			✓	✓			
5.	Data analysis and report writing	Principal invest. and local authorities				✓	~		
6.	Finalize report	Research team						\checkmark	
7.	Discuss recommendations/ plan of action	Research team/MOH and local authorities						✓	✓
7.	Presentation and dissemination	Research team/Policy maker MOH							✓

Budget

Budget preparation should consider:

Estimation of the time needed to complete project tasks in reality "Real World". □ Include a **5% contingency**. Provide not very detailed categories and amount "consider regulation". □ A contribution from Gov. side or Depart. Try to arrange the contribution separately.

Example of Budget for Safer Driving Promotion Program

Budget items	Unit cost	Multiplying factors	Total cost (US\$)	Remark
 Resource persons Counselors Health professional Traffic expert Vehicle expert Policy maker 	Daily wage (include per diem)	Number of staff-day x of working days	3000	Invited
2. Brochures Leaflets Posters	\$ 1.00 \$ 3.00	1 x 500 pieces 3 x 500 post.	500 1,500	
3. Visualization Microphones Loud speakers Display monitors CD-Rom	\$ 10 \$ 100 \$ 200	10 x 3 Mic. 100 x 2 loud speak. 200 x 2 Monitors	30 200 400	
4. Vehicles Car (rental include driver) Motorcycles	\$ 120 \$ 12	120 x 30 days 12 x 2 x 30 days	360 720	Consider the local economy
5. Office supplies Toner (laser toner) Pens	\$ 75 \$ 0.30	75 x 2 boxes 0.30 x 500	150 150	
Grand total			US\$ 7, 280	

Thank you