

# **METHODS SECTION OF A RESEARCH PROPOSAL**

**RESEARCH PROJECT – I**

- Describe how the methods section is linked to the aim of the study
- List the questions answered by the methods section of the proposal
- List the components of the methods section of a proposal
- Define a research setting
- Distinguish between target population, sampled population, sampling unit and unit of inquiry
- Recognize the importance of operational definition of terms used
- Link the study instrument with the type of data to be collected
- Identify the activities that should be covered in the time frame
- Provide a description of the implementation procedure

## Writing the methods section of a research proposal





# INTRODUCTION

“Scientific document written to provide a clear description of what is intended to be done and how it will be achieved”

A research proposal is simply a “plan of action” or “plan of the investigation” or “a blue print of the intended investigation”

- Description of the research problem
- Provide an argument regarding the importance and relevancy of the problem
- Highlighting the research gaps that will be bridged by the current research
- Description of the proposed research methods
- Operational definition of key terms
- Description of how the research findings will be used and disseminated
- Stating the ethical issues that will be considered

1. What is the problem?
2. What is the importance of studying this problem?
3. What is known or has been achieved?
4. What is not known and should be investigated?
5. What are the intended achievements of the research?
-  6. How the research will be conduct?
-  7. What data will be collected and how?



- ✓ 8. How data will be handled analyzed and presented?
- ✓ 9. What is the plan for executing the research: Who will do what and when?
- ✓ 10. What is the time frame for implementation?
- 11. How the new information will be used?
- 12. What are the resources available for implementation?
- 13. What are the expected limitations?

## BRIDGING THE GAP OF KNOWLEDGE



What are the intended achievements?

- Goal \_\_\_\_\_ Overall aim of the study
- Specific objectives \_\_\_\_\_ Specific achievements  
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Don't use

- To compare the results with international findings
- To discuss reasons for the findings obtained

# **METHODS SECTION OF A RESEARCH PROPOSAL**

1. Research design
2. Research setting
3. Study population
4. Sample size and sampling method
5. Operational definition
6. Study instruments
7. Procedure of implementation
8. Data analysis
9. Time frame

## What is the research design?

- Cross section study
- Case control study
- Cohort study
- Intervention study

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Provides information on the epidemiologic approach that will be used to investigate the problem and realize the aim



## What is the research setting?

- Hospitals (outpatient or inpatient)
- Primary Healthcare Centers
- Education institutions (schools, universities)
- Work place (factories)
- Community setting (population-based study)

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- Hospitals (outpatient or inpatient)
- Primary Health Centers
- Education institutions (schools, universities)
- Work place (factories)
- Community dwellers in a specific locality (population)

Provides information on where and when the study will be conducted

## What is the population?

- Target population
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  - About which an inference will be drawn
  - To which findings will be generalized
  - It may be the population at large or specific subgroup
- Sampled population (sample unit)
  - From which a conclusion will be drawn
  - That will be selected for the study

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Specify the inclusion and exclusion criteria

What is the sample size and sampling method?

- Sample size
  - How many will be included
  - Based on sample size calculation
- Sampling methods
  - The probability sampling technique that will be followed
  - How the sampling unit will be selected

Operational definition of terms

E.g.

Smokers

Obese

Maltreated children

Repeated abortion

Gestational diabetes

Severe hypertension

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**DON'T USE JARGON**

What are the data that will be collected and how?

Instrument (s)	Type of data
E.g.	
• Questionnaire interview _____	to obtain information on
• Observation checklist _____	Quality of performance
• Review of records _____	to obtain information on
• Anthropometry _____	to determine obesity
• Analysis of samples _____	to determine anemia



Description of the implementation of the study

Visiting the site (clinic, ward or the school) on Tuesday \_\_\_\_\_ then

Cases (or students) will be identified and interviewed \_\_\_\_\_ then

Completeness of the interview will be checked \_\_\_\_\_ then

Samples of (blood or tissue) will be obtained \_\_\_\_\_ then

Delivered to the lab and kept at a temperature of X°C \_\_\_\_\_ then

After completing the collection of samples these sample will be analyzed for \_\_\_\_\_

## Data analysis specifies

- Method of checking for data entry errors
- The descriptive statistics that will be used
- The test of significance that will be applied
- The level of significance that will be used to judge significance of the obtained results

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## DON'T

- Limit data analysis to the program that will be used
- Say that the type of analysis will be determine later

Specify the duration or the time of each activity

- Review of the literature
- Obtaining necessary approval
- Conducting a pilot study
- Data collection
- Analysis of the samples collected (if any)
- Data analysis
- Reporting of the findings

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Time of activity may overlap

**BRIDGE THE GAP OF**

**K... N... O... W... L... E... D... G... E**

**R**

**ESEARCH**

