

HEALTH RESEARCH METHODOLOGY

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WHAT IS RESEARCH?

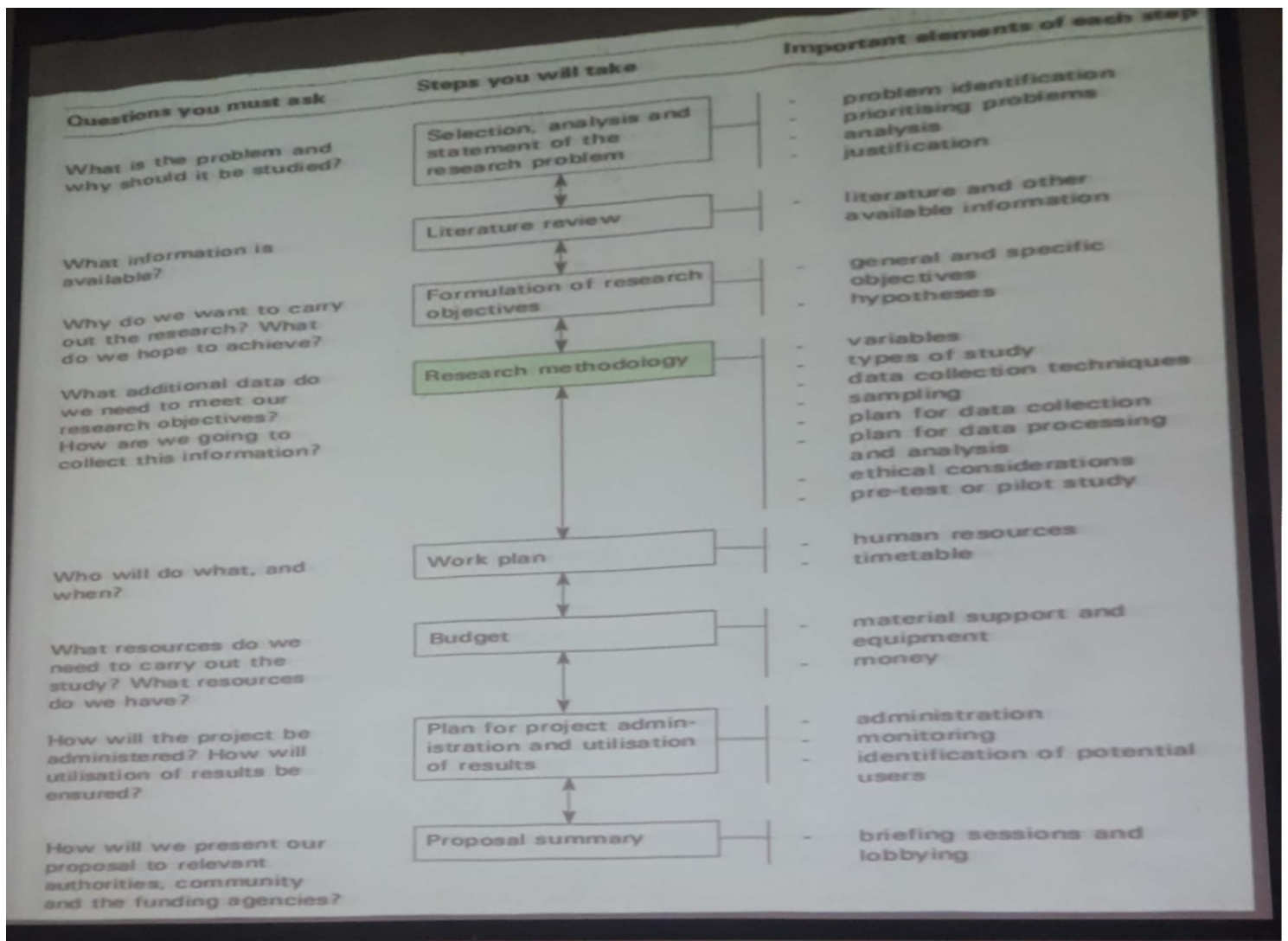
A process of systematic, scientific data;

- ◉ Collection
- ◉ Analysis &
- ◉ Interpretation
- ◉ So as to find Solutions to a problem.

WHY IS RESEARCH IMPORTANT?

Research is important because:

- ⦿ Each study answers scientific questions.
- ⦿ Each study helps scientists prevent, screen for, diagnose, manage, and treat a disease.
- ⦿ People who take part in clinical trials contribute to the knowledge of how a disease progresses.
- ⦿ Clinical trials test how well new approaches and interventions work in patients/people.



Questions you should ask:

1. What new information do we need?

2. What approach will we follow to collect this information?

3. What tools do we need to collect it?

4. Where should we collect it?

How many subjects do we include in the study and how do we select them?

5. When and with whom will we collect the data?

6. What will we do with the collected data?

7. Are we study harming anyone as a result of the study?

8. How can we determine whether our methods for data collection are correct before implementing the study?

Components of research design:

Selection of variables
(Module 2)

Selection of type of study
(Module 3)

Selection and development of data collection techniques
(Modules 10A, 10B, 10C)

Sampling (Module 1.1)

Plan for data collection
(Module 1.2)

Plan for data processing and analysis
(Module 1.3)

Ethical considerations discussed in various modules

Pre-testing the methodology
(Module 1.4)

LITERATURE SEARCH:

Allows one to search in a purposeful and systematic manner, through a range of literature or information relevant to ones particular field, and to hone in on material relevant to ones interest and objectives.

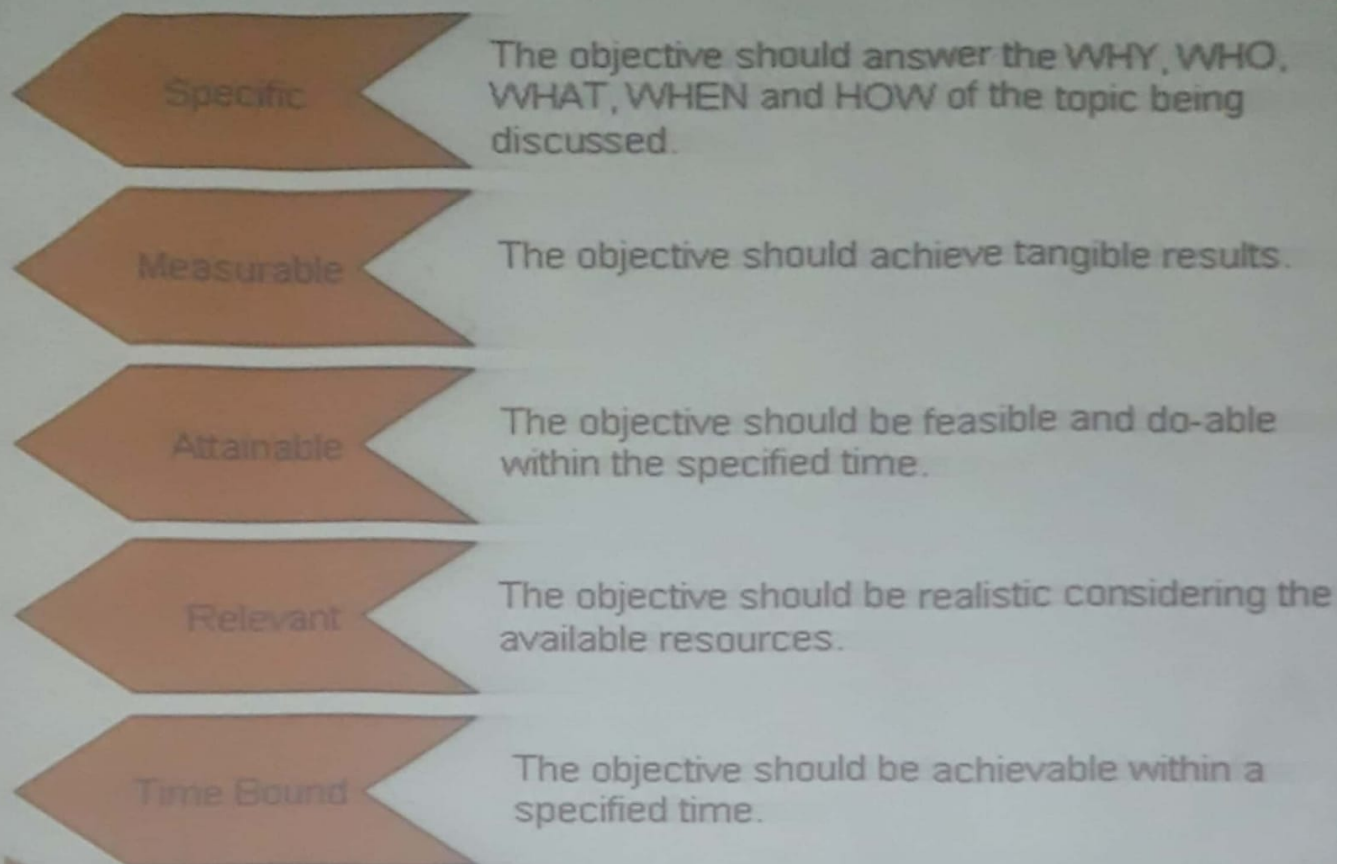
CRITERIA FOR SELECTING A RESEARCH TOPIC

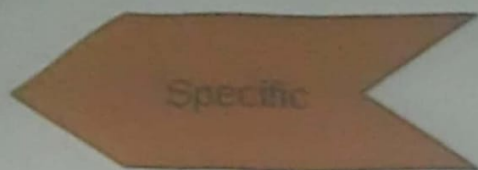
- ◉ *Relevance*
- ◉ *Interest*
- ◉ *Innovation*
- ◉ *Feasibility*
- ◉ *Acceptability*
- ◉ *Cost-effectiveness*

ethical
consideration

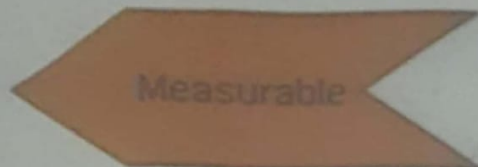
SEARCHING SOURCES

- ✓ Journal articles
- ✓ Research organizations
- ✓ Conference proceedings
- ✓ Database search
- ✓ PMRC directory
- ✓ Corresponding author

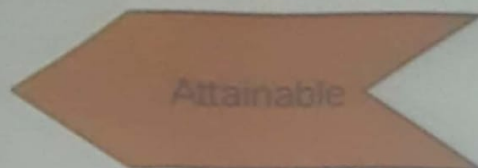




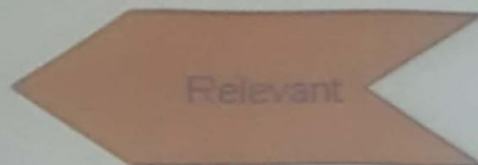
The objective should answer the WHY, WHO, WHAT, WHEN and HOW of the topic being discussed.



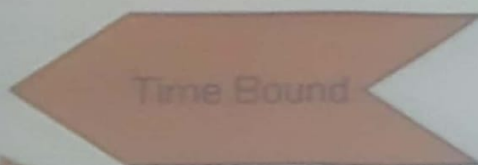
The objective should achieve tangible results.



The objective should be feasible and do-able within the specified time.



The objective should be realistic considering the available resources.



The objective should be achievable within a specified time.

HOW TO STATE OBJECTIVES

Using proper action verbs like;

- ✓ To determine,
- ✓ To compare,
- ✓ To identify,
- ✓ To calculate etc.

Avoid the use of vague non-action verbs such as:

to know, to appreciate, to understand, or to study.

EXAMPLES

- ✓ To determine the frequency of anemia in pregnant women visiting Teaching hospitals of Rawalpindi district.
- ✓ To determine association between maternal smoking and Low Birth Weight.
- ✓ To compare demographic variables and clinical spectrum of patients admitted with suspected dengue fever at allied hospitals of RMC.

OPERATIONAL DEFINITION

Is the definition of the exposure and outcome variables of interest in context to objective in a particular study and their means of measurement/determination.

e.g., Hypertension

Anaemia

Hyperglycaemia

Dengue fever

SAMPLING

A sample is a sub set of the population, with all its inherent qualities. Inferences about the population can be made from the measurements taken from a sample, if the sample is truly representative of the population. Since a sample is expected to represent the whole population, the sampling procedure has to follow three fundamentals:

1. Should be representative.
2. Large enough.
3. The selected elements should have been properly approached, included and interviewed.