



How to Write Research Title, Question & Objectives?

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Content

- ▶ Research & its purpose
- ▶ Research problem - sources & qualities
- ▶ Research title- characteristics
- ▶ Research question
- ▶ Research Hypotheses- criteria, importance
- ▶ Research objective

Research

- ▶ Research is a scientific, systematic, organized & ethical investigation into a phenomenon to discover new knowledge about the unknown in an attempt to find answer to a question & to solve problem.



Purpose of Research

- ▶ Discover new facts/ principles
- ▶ Verify & test old facts
- ▶ Fresh interpretation of known facts
- ▶ Solution of problem
- ▶ Explanation mechanism
- ▶ Development of tools/concept/ theory

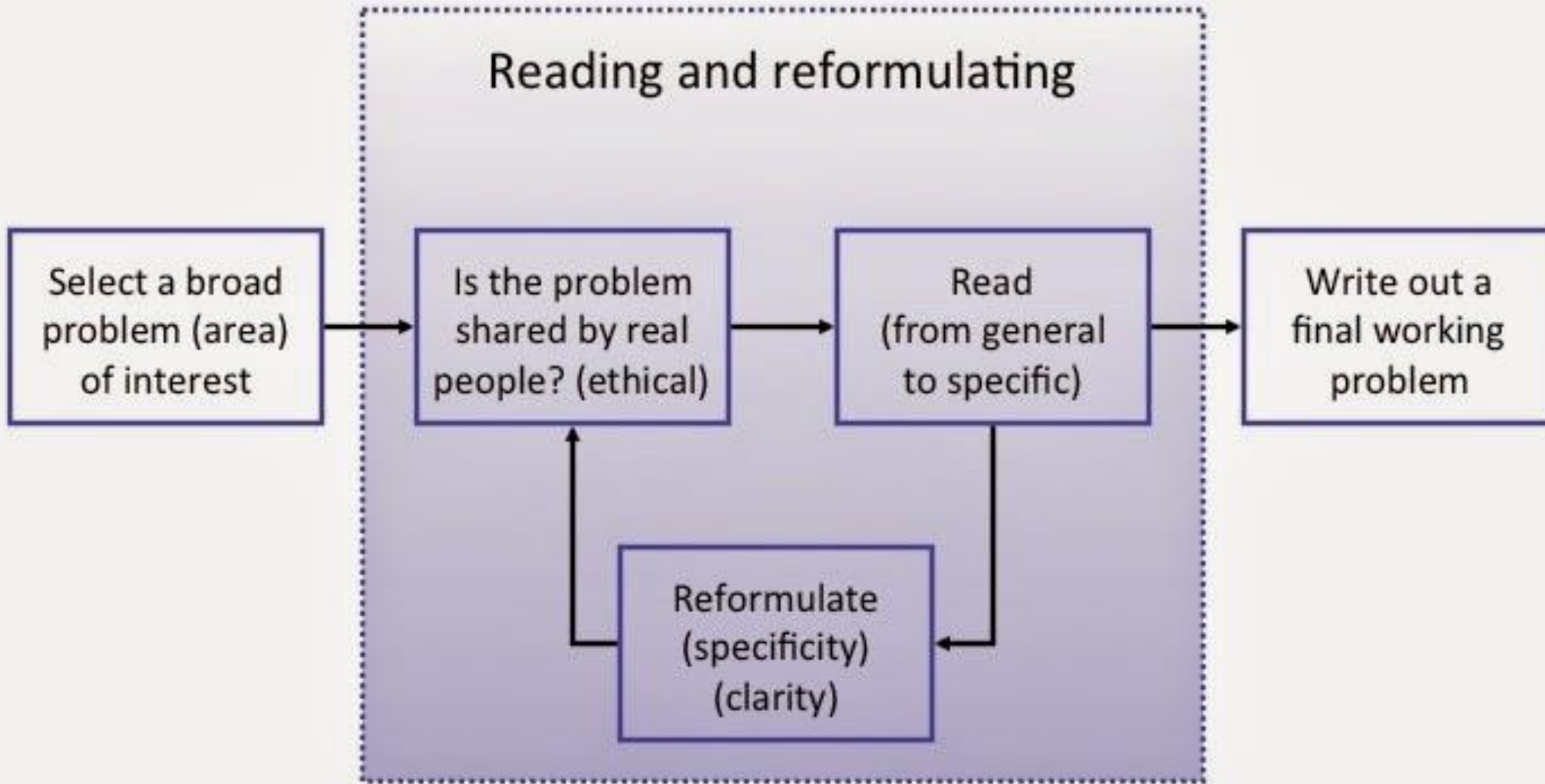
Five Questions for Good Research

- ▶ What is the problem to be solved? Every good research project solves some particular problem.
- ▶ Who cares about this problem and why?
- ▶ What have others done?
- ▶ What is your solution to the problem?
- ▶ How can you demonstrate that your solution is a good one?

Research Problem

- ▶ Discrepancy between the expected and the actual situation exists.
- ▶ The discrepancy raises questions “Why?”
- ▶ There are more than one possible answers to the questions.

Defining a research problem



Things to consider in selecting Research Problem

- ▶ Overdone subject usually not chosen
- ▶ Too narrow & too vague problem avoided
- ▶ Subject selected should be familiar & feasible
- ▶ Adequately trained & equipped for the research problem
- ▶ Should be within the budget one can afford

Sources of Research Problem

- ▶ Every day life
- ▶ Practical issues in hospital & community
- ▶ Past research
- ▶ Brain storming
- ▶ Intuition

Qualities of a Research Problem

- ▶ Importance
- ▶ Feasibility/Answerability
- ▶ Ethical acceptability

How to select a research topic?

Research before choosing a topic

Should not be broad

Know all the requirements

Relevant to your field of study

Align with current trends and hot topics

Aim to solve a genuine contextual problem

Should be a researchable topic

Keep page or word limit in mind

Should spark your interest

Should be relevant to the supervisor's field of study

Should not cause issues in data collection

Check availability of data collection tools

Getting ideas for topic

- ▶ Course Material
- ▶ News- Yahoo news, CNN.com, local broadcast news all cover recent events
- ▶ Internet/ library
- ▶ Advisor/ colleagues
- ▶ Reading literature/ publications
- ▶ Conferences/ seminars
- ▶ Draw inspiration from anywhere

AVOID THESE TOPICS



Research Title

- ▶ A research title is a subject or issue that a researcher is interested in when conducting research.
- ▶ A well-defined research title is the starting point of every successful research project.
- ▶ It is an ongoing process by which researchers explore, define and refine their ideas.

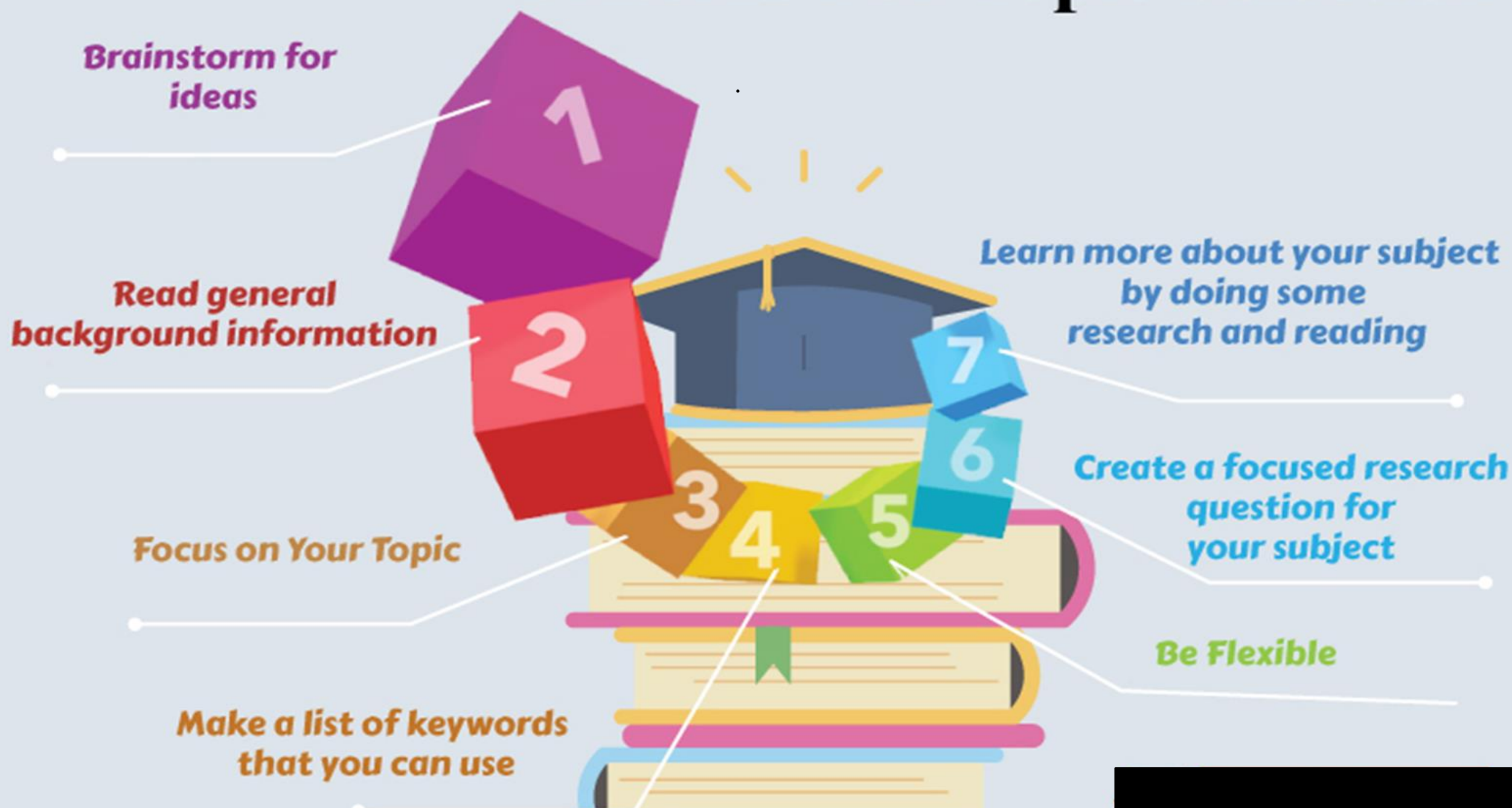
Research title, cont...

- ▶ If we find too much information, we may need to narrow our topic
- ▶ If we find too little, we may need to broaden our topic
- ▶ Be original
- ▶ Follow the supervisor advice

Characteristics of Research Title

- ▶ Relevance
- ▶ Avoidance of duplication
- ▶ Feasibility
- ▶ Political acceptability
- ▶ Applicability of possible results & recommendations
- ▶ Urgency of data needed
- ▶ Ethical acceptability

Criteria For Topic Selection



Checklist of Attributes of a Good Research Topic

- Does the topic fit criteria for examining institution?
- Does the topic really fascinate you?
- Does it contain issues that have strong links to the theory?
- Is it achievable within the available time & resources?
- Can you get access to the data?
- Can you state your research question & objectives clearly?
- Are the findings likely to be symmetrical?
- **Consider your career goals!!!**

RESEARCH QUESTION



Definition

- ▶ It is the unanswered questions that has stimulated to undertake the research.
 - ▶ There may be more than one research question.
- It is just a question,
not a statement.



FINER criteria for a good research question

F Feasible

Adequate number of sample size & technical expertise

Affordable in time and money

I Interesting

N Novel (new & strange)

Confirms or extends previous findings, provides new findings

E Ethical

R Relevant

To scientific knowledge

To clinical and health policy

To future research direction

Good Research Questions Are

- ▶ Answerable
- ▶ Narrow enough to be covered sufficiently in the required number of pages
- ▶ Broad enough that we can actually find information
- ▶ Abstract enough to require analysis



Characteristics of a strong research question





HYPOTHESIS

Research Hypothesis

- ▶ Hypothesis is a logical, tentative & testable answer(s) to the research question.
- ▶ It is a statement, **not a question.**

Contd...



Hypotheses

- ▶ Indicates researchers actual expectation & belief about a problem that motivated the researcher
- ▶ It reflects the depth of knowledge, imagination & creativity of researcher

Criteria of Good Research Hypothesis

- ▶ Conceptual clarity
- ▶ Specificity
- ▶ Unidimensional
- ▶ Measurable & testable
- ▶ Relevant
- ▶ Empirical
- ▶ Consistency
- ▶ Objectivity
- ▶ Capable to answer research question

Importance/ Function of Hypothesis

- ▶ Hypotheses guides the thinking process of researcher & make the foundation for scientific research.
- ▶ It provides directions to conduct research.
- ▶ It determines the appropriate techniques of data analysis.

Contd...

Importance/Function of Hypothesis

- ▶ Help to select appropriate population, variables, intervention, research design & methods of data collection.
- ▶ Act as a framework for drawing conclusion.

Limitation

- ▶ It may bias the researcher towards a particular position & cause him to lose objectivity.



Types of Hypothesis

- ❖ **Alternate Hypothesis:**

- ▶ It is the hypothesis of difference.

- ❖ **Null Hypothesis:**

- ▶ It is the hypothesis of no difference.

How to write a Hypothesis

Ask a question

Gather research

Answer your question

Write a hypotheses draft

Revise your hypotheses

Create a null hypotheses



Research objective

- ▶ A research objective includes exploration, description, explanation, prediction, evaluation & impact assessment.
- ▶ It may be expressed as:
 - i) Declarative form
 - ii) Non-declarative form



Types of Research objective

- ▶ General objective
- ▶ Specific objective
- ▶ Ultimate objective

Qualities of Specific objective

Specific

Measurable



Achievable

Realistic

Time-bound



- ▶ **Research Title:** " Factors responsible for early onset of (MI) myocardial infarction"
- ▶ **Research question:** What are the risk factors of early onset MI?
- ▶ **Research Hypothesis:** Non-communicable diseases (eg; DM, HTN, Obesity) during early life are not the factors responsible for MI.

- **General objective:** To identify the risk factors of early onset MI
- **Specific objective:**
 - ❖ Measurement of fasting blood glucose & lipid profile of respondent
 - ❖ To calculate height & weight of respondent
- **Ultimate objective:** To aware the people about the risk factor of early onset of MI.

References

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THANK YOU

