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IDENTIFYING A RESEARCH PROBLEM



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WHAT IS RESEARCH ?

- Research is a creative and systematic work undertaken to enlarge the domain of knowledge.
- It involves the collection, organization and analysis of information to increase the understanding of a topic, a phenomena, a practice, a policy or issue.
- It all begins with a ‘problem’.



A RESEARCH PROBLEM?

- From where ????????
- Curiosity
- Information Gaps
- Controversy
- Replication
- Review of related literature
- Other People (policy, governance....)???



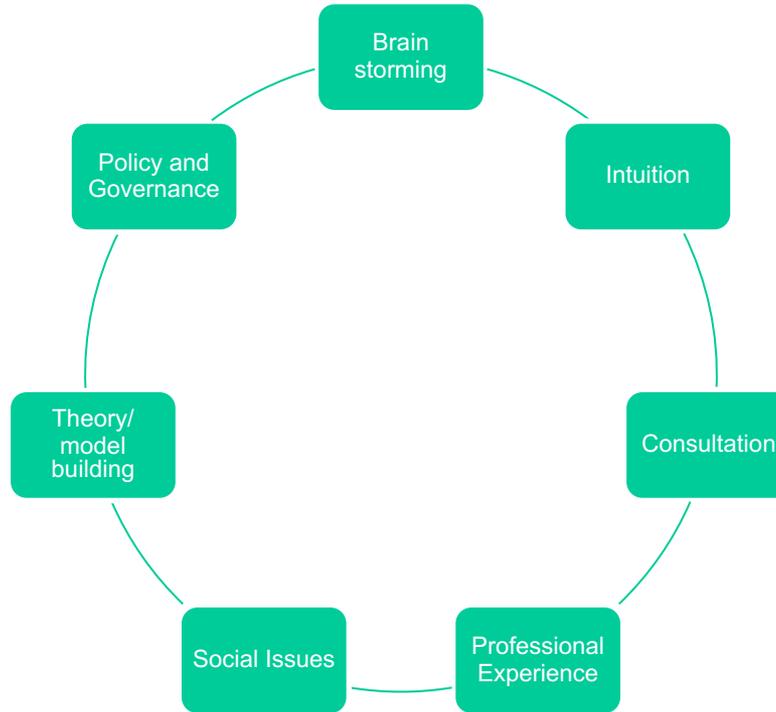


SOURCES FOR IDENTIFYING A RESEARCH PROBLEM





FOCUSING A RESEARCH PROBLEM





A RESEARCH IDEA TO AREA, TOPIC AND PROBLEM?

Idea

- Cost of Living
- Employment and Demographic dividend
- Inter-state migration and Labour market

Area

- Surge in Price level of Oil products
- Skill development and Employability of the youth
- Inter-state Migrant Labourers in the Informal Labour Market

Topic

- Fiscal Implications of Oil price Rise in India
- Acquired and Required Skill sets of Educated Youth in India
- Wage and Employment of inter-state migrant workers in Kerala





A RESEARCH IDEA TO AREA, TOPIC AND PROBLEM?

- Problems:
 - Fiscal Federalism in the Tax sharing of Oil prices in India
 - Economic Impact of surge in oil prices among the different income groups in India –A micro level analysis





A RESEARCH IDEA TO AREA, TOPIC AND PROBLEM?

- Problems:
 - Skill development and Employability of Women in MSMEs –A case study in Kerala
 - Skill development for employability in online trading





A RESEARCH IDEA TO AREA, TOPIC AND PROBLEM?

- Problems:
 - Wage, Employment and Social Security of the Inmigrant workers in the Construction sector of Kerala
 - Impact of the Pandemic on Inmigrant Workers in Kerala





IDENTIFYING A RESEARCHABLE PROBLEM

- ✓ Research Idea generates from...
 - Everyday life (Professional experience)
 - Practical issues (Burning questions)
 - Review of Past research/Literature
 - Professional meetings
 - Discussions with experts
- ✓ Which leads to identify a **critical research gap** which often generates more questions
- ✓ Disagreements among studies can also lead to worthwhile research problems...





WAYS OF FORMULATING A RESEARCH PROBLEM

- Nominal (Formal), defining with concepts
 - **Wage and Employment** of inmigrant labourers in Kerala
- Epistemic (example), defining by example
 - Wage and Employment of inmigrant labourers –the **case of construction workers**
- Procedural (operational), defining a method to recognize examples
 - **Wage differentials** between local and migrant labourers



HOW DO A RESEARCH PROBLEM TAKES ITS SHAPE?

- Ask questions by oneself pertaining to the problem-Wh questions...?
- Listen to experiences of practical problems in the field
- Learn from those experiencing the issues in the field (pre pilot study)

Review of Literature
Literature in your specific
field



- Request for proposals





CHARACTERISTICS OF A GOOD RESEARCH PROBLEM...

1. **Interesting** – keeps the researcher interested in it throughout the research process
2. **Researchable** – can be investigated through the collection and analysis of data
3. **Significant** – contributes to the improvement and understanding of existing/new theory and practice
4. **Manageable** – fits the level of researcher's level of research skills, needed resources, and time restrictions
5. **Ethical** – does not embarrass or harm participants, culture, values etc.



REFINING THE PROBLEM...

- The process of refining the question or idea into a problem and making it sufficiently **specific** so that it is amenable to investigation
- This process should lead to the development of a **statement of the problem** that is clear, concise, and precise



STATING THE PROBLEM...

- The purpose statement/ statement of the problem conveys the overall intent of a proposed study
- The purpose statement sets the objective, the intent or the major idea of a proposal or a study
- This idea builds on a need (the problem) and is refined into specific questions

• Use words such as *purpose*, *intent*, or *objective* to signal attention to this statement as the central controlling idea. Set the statement off as a separate sentence or paragraph, and use the language of research, such as “The purpose (or intent or objective) of this study is (was) (will be) ...”



TITLE OF THE STUDY

- The title summarizes the main idea or ideas of your study. A good title contains the fewest possible words needed to adequately describe the content and/or purpose of your research paper.
- The following parameters can be used to help you formulate a suitable research paper title:
 - The purpose of the research
 - The narrative tone of the paper [typically defined by the type of the research]
 - The methods used



TITLE OF THE STUDY

- The initial aim of a title is to capture the reader's attention and to highlight to the research problem under investigation.
- The key terms used in the title of the study are to be defined
 - Dictionary/ technical definition
 - Operational definition



SOURCES OF DEFINITIONS OF KEY TERMS

- Articles in Professional Journals
- Electronic Abstracts and Indexes
- Web Searches
- Books, Monographs, Government Reports



Review of Literature in your specific field



- Professional Standards
- Legislation
- Regulations
- Journalistic Sources
- Advocacy Groups





TYPES OF RESEARCH TOPICS



- Descriptive
 - What is going on, what exist
- Relational
 - Look at relationship between two or more variables
- Causal
 - Study one or more variables causes or affects one or more outcome variables

The three can be viewed as cumulative



A HIERARCHY OF CONCEPTS



We can distinguish levels of concepts and questions, which vary in levels of abstraction, forming an inductive-deductive hierarchy:

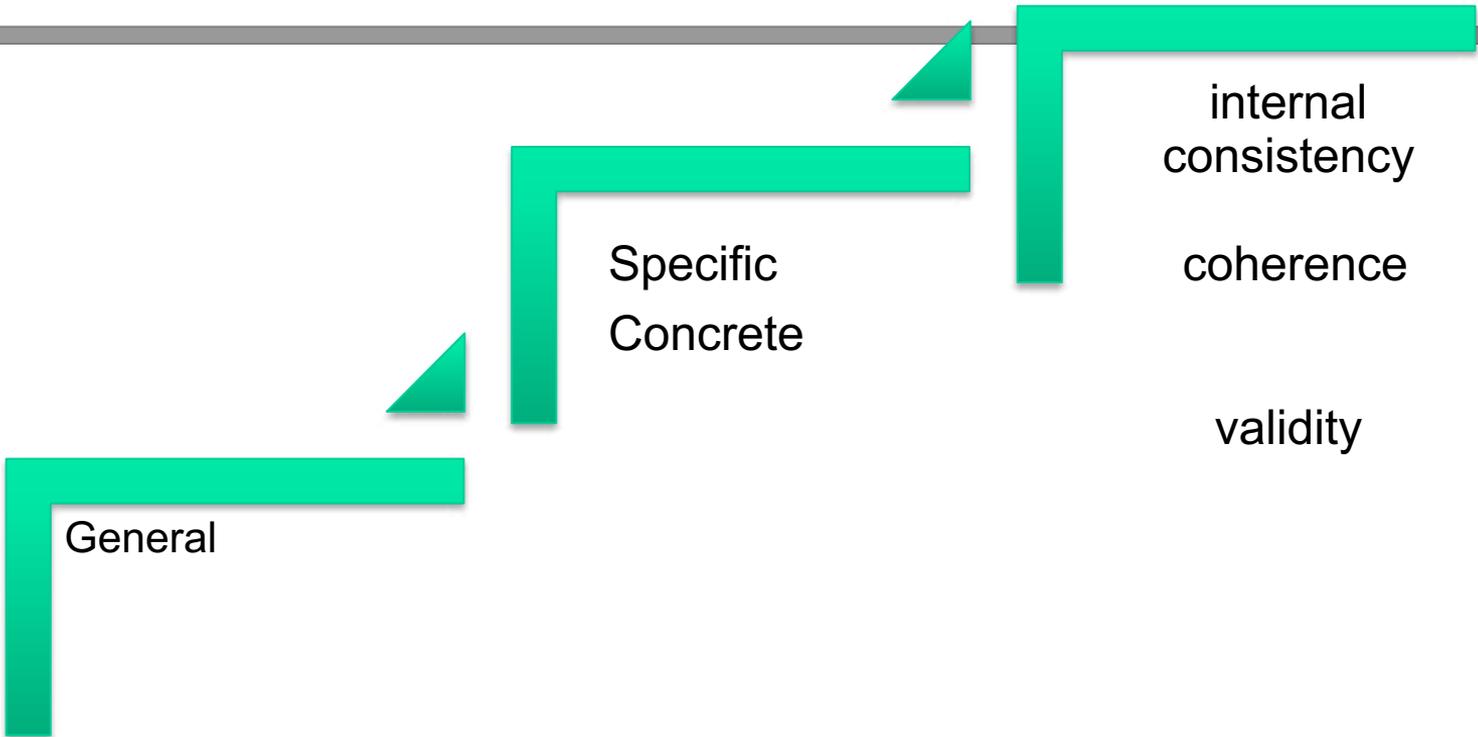
Research area;
Research topic;
General research questions;
Specific research questions;
Data collection questions.

Eg: RQ:

How are Remittance impact on select economic variables?



A HIERARCHY OF CONCEPTS





FROM RESEARCH AREAS TO RESEARCH TOPICS

- Research areas are usually stated in a few words, and sometimes just one word.
- Research topics are a few words, but usually more than those describing the research areas

From research area to research problem

Research area: **Inmigration in Kerala**



Possible research topics:

1. Economic and social impact of inmigration in Kerala
2. Managing inmigration and changing scenario of labour market in Kerala
3. Extent of workplace exploitation of immigrant labourers in the construction sector in Kerala
4. Rate of increase of immigrant labourers in the construction sector

Note: Topic 1&2 → Qualitative; 3&4 → Quantitative.....**HOW?**



RESEARCH TOPICS TO GENERAL RESEARCH QUESTIONS

Research topic:

Extent of workplace exploitation of inmigrant labourers in the construction sector in Kerala

Research Question 1

What are the different types of exploitation prevail in the construction sector of Kerala?

Research Question 2

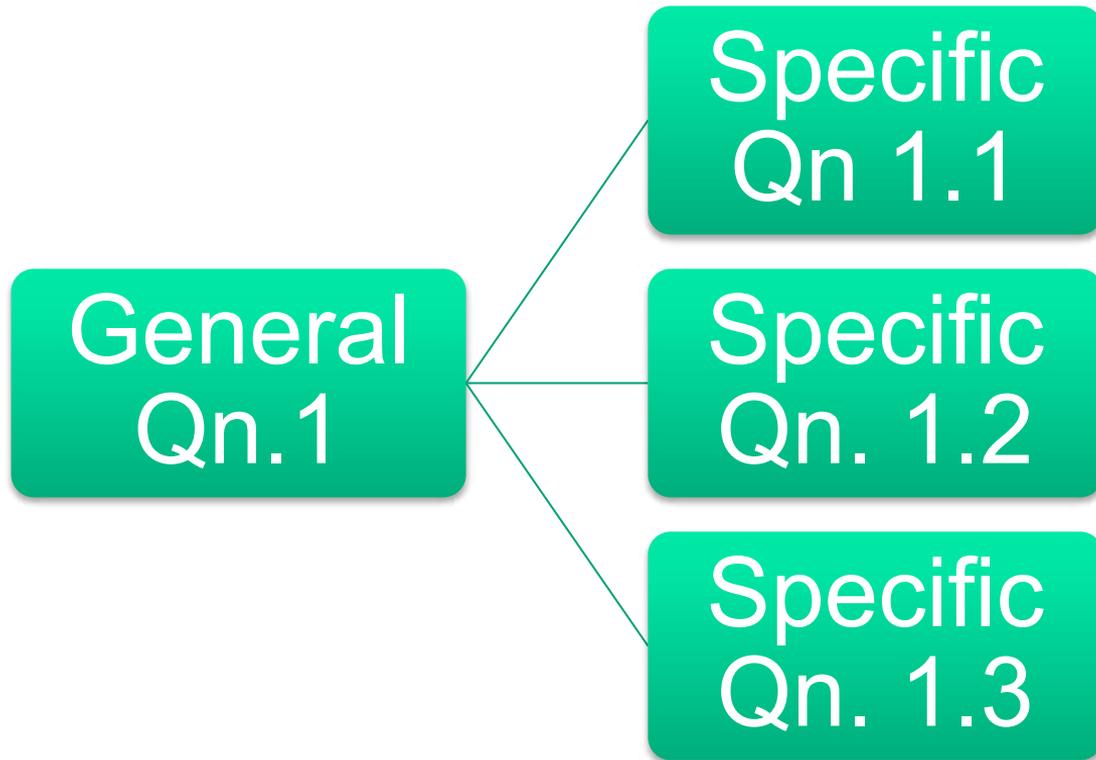
What is the incidence of gender discrimination and exploitation among the inmigrant labourers in the construction sector of Kerala?

Note: More greneral questions are possible. These are only sample qns. As noted earlier the topic has a quantitative inclination and so are the qns...





GENERAL TO SPECIFIC RESEARCH QUESTIONS





A RESEARCH QUESTION MUST IDENTIFY...

A Research Question is a statement that identifies the phenomenon to be studied. It should identify:

1. The variables under study
2. The population being studied
3. The testability of the question





WHAT MAKES A GOOD RESEARCH QUESTION?

- Focused
- Empirical
- Clear
- Based on prior research or theory

- Guides and centers the research
- Important to answer
- Leads to solution of the problem
- Has intuitive appeal

Types of Research Questions

- Exploratory
- Descriptive
- Explanatory
- Predictive
- Evaluative





TYPES OF RESEARCH QUESTIONS

Exploratory

- Clarifying Questions
- Clarifying Populations
- Clarifying Ideas
- Open-ended

Eg: What are the Health issues of mine workers?

Descriptive

- Obtaining specific facts
- Obtaining facts to describe issue
- Summarizing population characteristics
- Examining non-causal relationships

Eg: What is the relationship between environmental pollution and health?

Explanatory

- Examines causal relationships
- Tests causal hypotheses
- Explains relationships
- Builds theories

eg: What are the health hazards caused by pollution?



TYPES OF RESEARCH QUESTIONS

Predictive

- Predicts events
- Predicts characteristics
- Uses Theory and Description
- Develops predictive equations

(Regression and prediction

Extrapolation)

Evaluative

- Deal with matters of choice value and judgment
- Inferential questions
- Assessing levels of performance

Mixed

- Triangulation
- Multi-measures
- Multi-methods



HOW TO FORMULATE OBJECTIVES?

- ➔ Your objectives grow out of your research questions.
- ➔ The main difference between objectives and research questions is the way in which they are written.
- ➔ Research questions are obviously those questions which summarizes the issue under study.
- ➔ Objectives transform these questions into behavioural aims by using action-oriented words such as 'to find out', 'to determine', 'to ascertain' and 'to examine', 'to measure', 'to explore' etc.



RESEARCH QUESTIONS AND RESEARCH OBJECTIVES

Research questions	Research objectives
Why have organizations introduced early retirement ?	To identify organization' s aim for introducing different retirement schemes.
What are the consequences of early retirement schemes ?	To describe the consequences of early recruitment for employees. To explore the effects of early retirement for the organization

The research objectives are pursued in order to answer the research questions

THEORY BLENDING

- A theory is a set of interrelated **constructs**, **definitions**, and **propositions** that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena.
- **Constructs** are concepts adapted for a scientific purpose
- Through research, scientists can develop, modify, or evaluate theories.

THEORY BLENDING

- **Theories** are **generated** by using **inductive processes**
- A **deductive approach** is used to evaluate and modify existing theory by **testing predictions** about relationships between observed phenomena.

THEORETICAL FRAMEWORK

- ❑ It provides a context for examining a problem i.e. theoretical *rationale for:*
 - ❑ Developing hypotheses
 - ❑ A frame of reference/base for
 - ❑ Observations
 - ❑ Definitions of concepts
 - ❑ Research designs
 - ❑ Interpretations
 - ❑ Generalizations
- ❑ Serves as a guide to systematically identify logical, precisely defined relationships among variables

USE OF THEORETICAL FRAMEWORK IN A STUDY

- The outcomes of the study must be viewed in terms of their support or lack of support of the chosen theoretical rationale
- The theoretical framework plays an important role in guiding the entire process of the research study

USE OF THEORETICAL FRAMEWORK IN A STUDY

- If the framework is logically sound and substantiated by previous research studies, there is a strong possibility that the predictions or hypotheses developing from that framework will be supported.
- *In some cases, a theoretical rationale is inappropriately used. e.g.; a theory is designed to explain a particular behaviour of the tribals may not be appropriate for the study of those behaviours in prisoners*

HOW TO DEVELOP A THEORETICAL FRAMEWORK

1. Select concepts-

a *concept* is an image or symbolic representation of an abstract idea. e.g. health, pain, intelligence ...

2. Identify the interrelationships among concepts

A relationship may be:

a. rigid = scientific law e.g. laws of motion

No known contradiction has been observed

b. tentative or questionable = relationship that does not convey truth or falsity

HOW TO DEVELOP A THEORETICAL FRAMEWORK

3. Formulating definitions-

To develop a theoretical framework that can generate and test hypotheses, concepts must be clearly defined

- A. Conceptual definition ... conveys the general meaning of the concept
- B. Operational definition ... adds another dimension to the conceptual definition by delineating the procedures or operations required to measure the concept

Some concepts are easily defined in operational terms, e.g. wage, other concepts are more difficult to define operationally, e.g. trustworthiness

4. Formulating the theoretical rationale

- Through the literature review, an investigator becomes aware of or confirms identified theoretical connections between variables
- In evaluating the formulation of the theoretical rationale, the internal structures, such as concepts and their definitions, should have clarity and continuity, and the approach to understanding phenomena, whether inductive or deductive, should be logical

TYPES OF THEORIES & TYPES OF RESEARCH

Theories may describe a particular phenomenon, explain relationships between or among phenomena, or predict how one phenomenon affects another

Theory	Purpose	Type of research
Descriptive	describe or classify specific dimensions or characteristics of individuals, groups, situations, or events by summarizing the commonalities found in discrete observations	<i>To test descriptive theories, researchers conduct descriptive research studies</i>

TYPES OF THEORIES & TYPES OF RESEARCH

Theory	Purpose	Type of research
<i>Explanatory theories</i>	specify relations among the dimensions or characteristics of individuals, groups, situations, or events	<i>Explanatory theories are tested by using correlational research</i>
<i>Predictive theories</i>	intended to predict "precise relationships between the dimensions or characteristics of a phenomenon or differences between groups"	<i>Predictive theories are tested through Experimental or quasi-experimental research designs</i>

CONTRIBUTION OF THEORIES TO RESEARCH

When developing a **theoretical framework** for research studies, knowledge is acquired through:

- Disciplines other than Economics and **rented** for the purpose of answering questions your discipline
- Identifying and asking questions about phenomena that are **unique** to Economics

CONTRIBUTION OF THEORIES TO RESEARCH

- Theories unique to economics help to define how it is different from other disciplines
- The central phenomena of interest to economics are households, firms, government, environment, health & economic growth and development, finance, trade, market, supply, demand and price, policies etc.

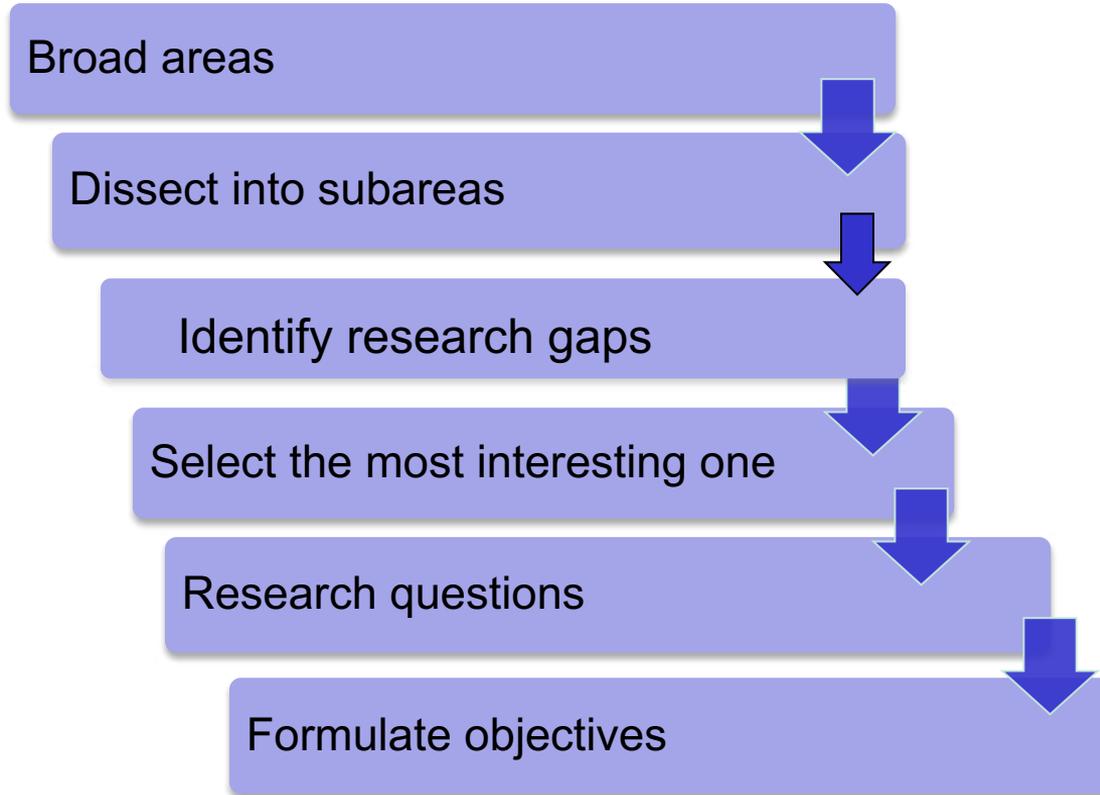
CRITIQUING THE THEORETICAL FRAMEWORK

1. Is the theoretical framework clearly identified?
2. Is the theoretical framework consistent with what is being studied?
3. Are the concepts clearly and operationally defined? Do they reflect the area of investigation?
4. Was sufficient literature reviewed to support the proposed relationships?
5. Is the theoretical basis for hypothesis formulation clearly articulated? Is it logical?

CRITIQUING THE THEORETICAL FRAMEWORK

6. Are the relationships among propositions clearly defined?
7. If the theory is borrowed from a discipline other than economics are the data related specifically to economics?
8. Does the instrument used to measure the variables, consistent with the theoretical framework?
9. Are the study findings related to the theoretical rationale?

SUMMARISING THE STEPS IN RESEARCH PROBLEM

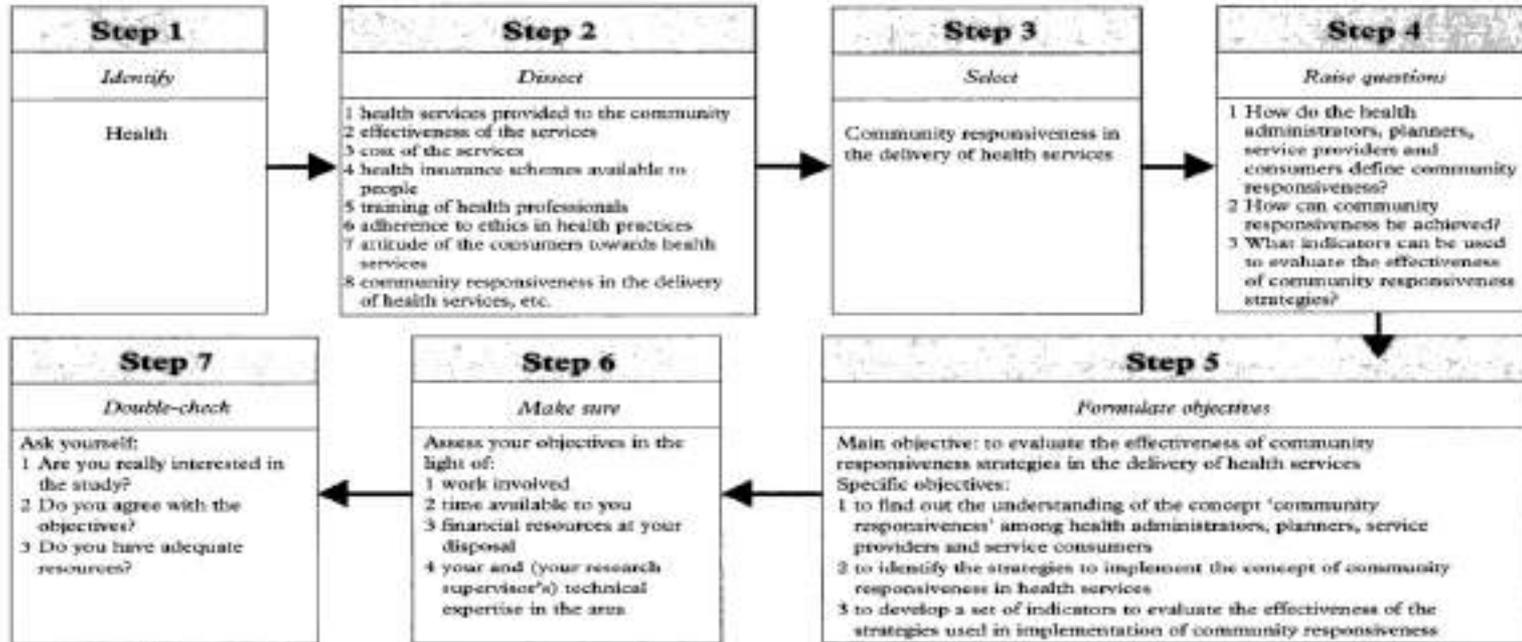


STEPS IN FORMULATING A RESEARCH PROBLEM



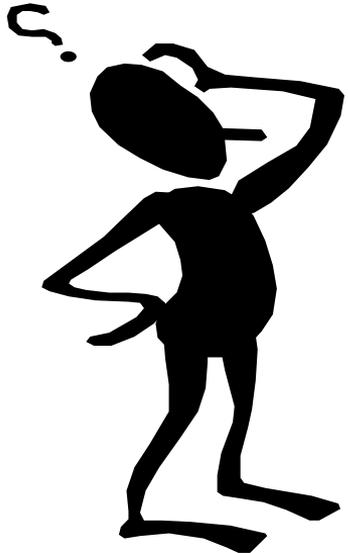
Figure 4.4 Narrowing a research problem—health

Example 3: Suppose you want to conduct a study in the area of health. Follow these steps.





IDENTIFYING A RESEARCH PROBLEM



"Well begun is half done"
--Aristotle, quoting an old proverb

SUGGESTED READINGS

- Carter V. Good : How to do Research in Education (Published 2006 by Indigo Books)
 - John W. Best, James V. Kahn : Research in Education – 10th ed. 2008.
 - Jonathan Grix: The Foundations of Research, (Palgrave Research Skill Series, 2nd ed.)
 - John W. Creswell : Educational Research: Quantitative, Qualitative and Mixed Method Approaches, 4th ed.2014.
- C.R. Kothari(1994): An Introduction to Operational Research



Thanks!

