



RESEARCH METHODOLOGY

Defining the Research Problem

Prof. Raghu B. A.

raghubarao@pes.edu

Dept of Computer Science and Engineering

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Ch. 2: Defining the Research Problem

Department of Computer Science and Engineering

Chapter 2:

Defining the Research Problem



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What is a Research Problem



A research problem is a specific issue, difficulty, contradiction, or gap in knowledge that you will aim to address in your research.

A research problem is a statement about an area of concern, a condition to be improved, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or in practice that points to the need for meaningful understanding and systematic investigation.

Difficulty which a researcher experiences in a context of either theoretical or practical situation and wants to obtain the solution to overcome the same.

What is a Research Problem



Textbook Definition:

“Research Problem, in general, refers to some difficulty which a researcher experiences in the context of either a theoretical or practical situation and wants to obtain a solution for the same.”

A RP does exist if the following conditions are met:

I = Individual

N = eNvironment (def by uncontrolled variables, Y_j)

C_1, C_2 = two Courses of action

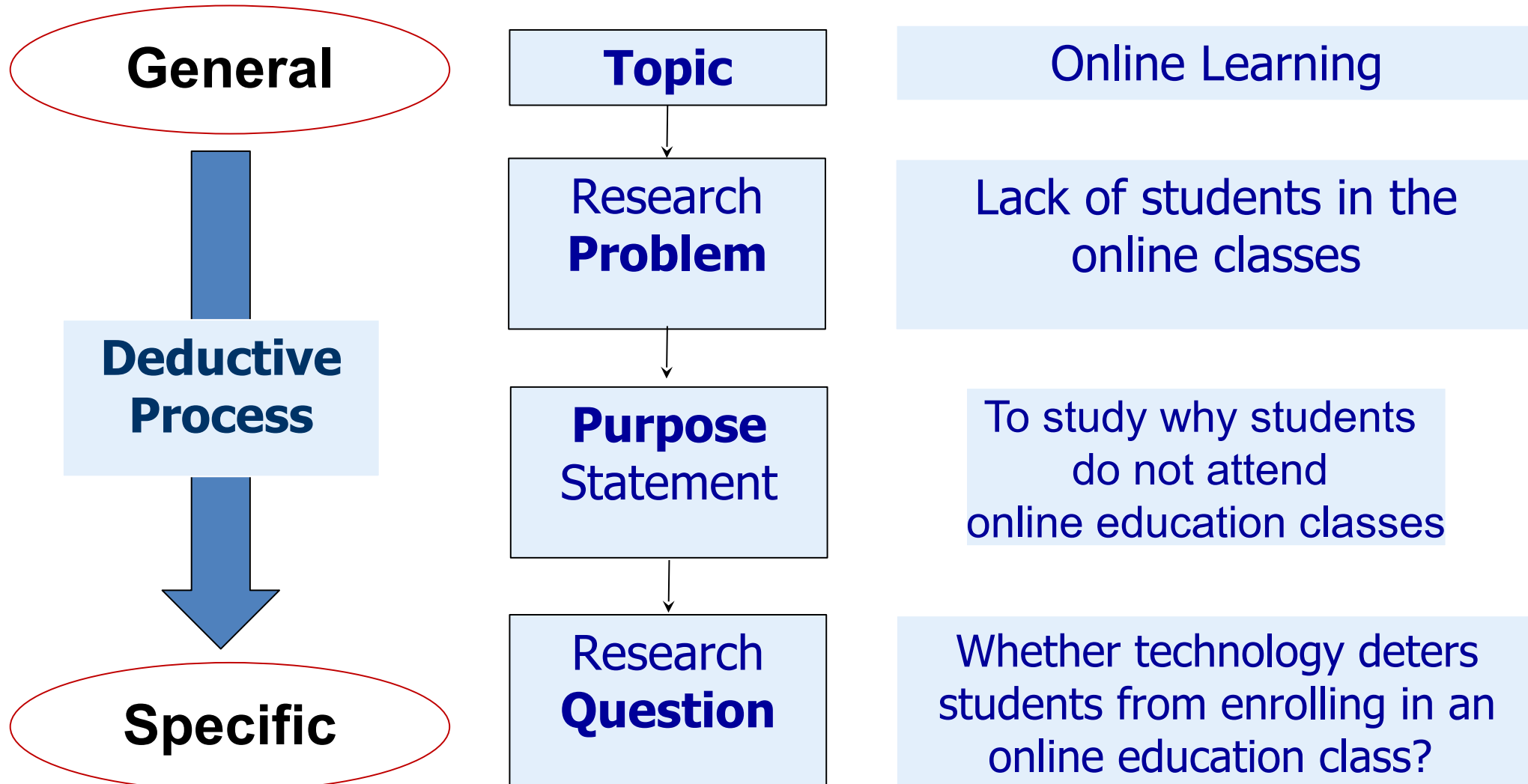
O_1, O_2 = two Outcomes

$P(O_j | I, C_j, N)$ = Probability

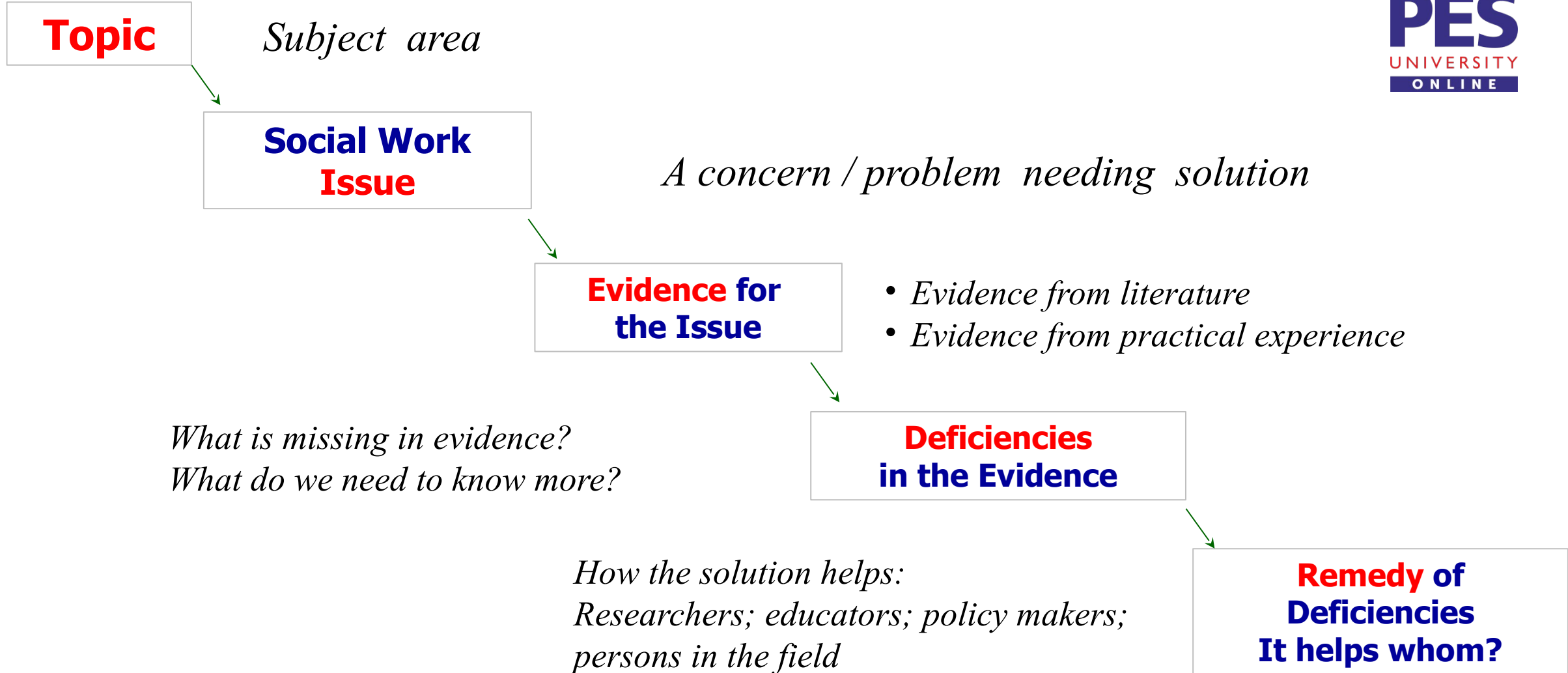
$P(O_1 | I, C_1, N) \neq P(O_1 | I, C_2, N)$

The choices must have unequal efficiencies for the desired outcomes.

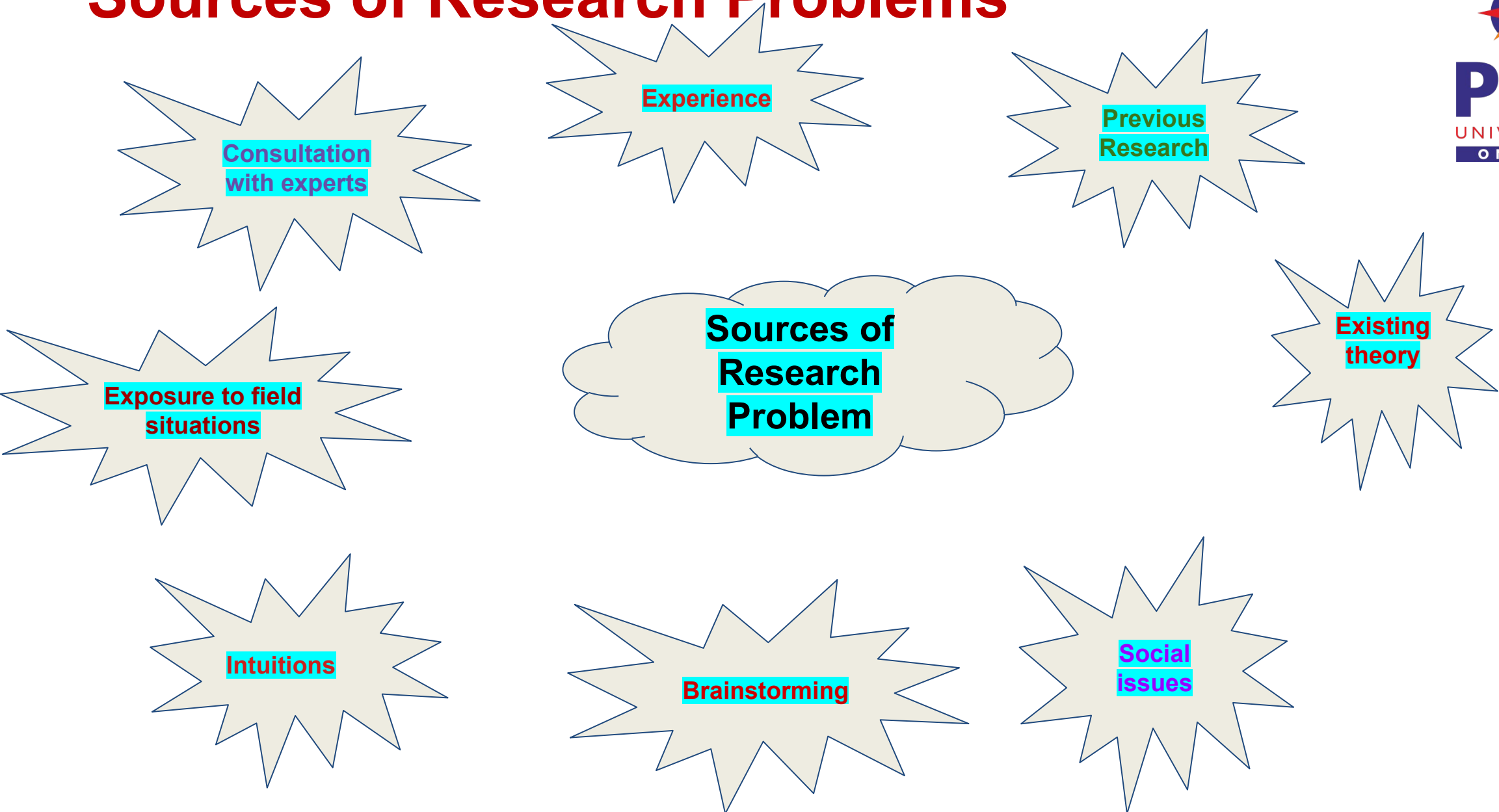
Topic, Problem, Purpose & Questions



The 5 Elements of Problem Statement



Sources of Research Problems



Selecting of a Research Problem



1. Subject which is not overdone is chosen
2. Controversial subject should be avoided
3. Avoid vague problem
4. Subject should be familiar and feasible
5. Selection of problem must be preceded by preliminary study

Necessity of Defining the Problem



Clearly stated research problem is half solved:

1. What data are to be collected?
2. What characteristics of data are relevant?
3. What relations are to be explored?
4. What techniques are to be used for this purpose?

Technique Involved in Defining a Problem



1. State the problem in a general way
2. Understand the nature of the problem
3. Survey the available literature
4. Develop ideas through discussions
5. Rephrase the research problem

Technique Involved in Defining a Problem

- (a) Technical terms and words or phrases, with special meanings used in the statement of the problem, should be clearly defined.
- (b) Basic assumptions or postulates (if any) relating to the research problem should be clearly stated.
- (c) The criteria for the selection of the problem should be provided.
- (d) The suitability of the time-period and the sources of data available must also be considered.
- (e) The scope of the investigation (or the limits within which the problem is to be studied) must be mentioned explicitly.

In Conclusion



The task of defining a research problem follows a sequential pattern —

- the problem is stated in a general way, the ambiguities are resolved,
- thinking and rethinking process results in a more specific formulation of the problem so that it
- may be a realistic one in terms of the available data and resources and
- is analytically meaningful.

All this results in a *well defined research problem* that is

- meaningful from an operational point of view,
- paves the way for the development of working hypotheses and
- means of solving the problem.



THANK YOU

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