Formulation of Research Problem

A) Research problem

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 deliberate investigation. In some social science disciplines the research problem is typically posed in the form of a question. A research problem **does not** state how to do something, offer a vague or broad proposition, or present a value question.

The purpose of a problem statement is to:

1. **Introduce the reader to the importance of the topic being studied**. The reader is oriented to the significance of the study and the research questions or hypotheses to follow.
2. **Places the problem into a particular context** that defines the parameters of what is to be investigated.
3. **Provides the framework for reporting the results** and indicates what is probably necessary to conduct the study and explain how the findings will present this information.

Basic characteristics of research problem

For your research problem to be effective, make sure that it has these basic characteristics:

- Reflecting on important issues or needs;
- Basing on factual evidence (it's non-hypothetical);
- Being manageable and relevant;
- Suggesting a testable and meaningful hypothesis (avoiding useless answers).

B) Formulation of Research Problem

Formulating your **research problem** enables you to make a purpose of your **study** clear to yourself and target readers. Focus your paper on providing relevant data to address it. A **problem** statement is an effective and essential tool to keep you on track with **research** and evaluate it. There are Five ways to formulate the research problem:

I. Specify your research objectives;
II. Review its context or environment;
III. Explore its nature;
IV. Determine variable relationships;
V. Alternative approaches.

I. Specify research objectives

A clear statement that defines all objectives can help you conduct and develop effective and meaningful research. They should be manageable to bring you success. A few goals will help you keep your study relevant. This statement also helps professors evaluation the questions your research project answers and different methods that you use to address them.

II. Review the context of your research problem

It's necessary to work hard to define and test all kinds of environmental variables to make your project successful. Why do you need to do that? This step can help you define if the important findings of your study will deliver enough data to be worth considering. Identify specific environmental variables that may potentially affect your research and start formulating effective methods to control all of them.

III. Explore the nature of research problem.

Research problems may range from simple to complex, and everything depends on a range of variables and their relationships. Some of them can be directly relevant to specific research questions, while others are completely unimportant for your project.

Why should you understand their nature? This knowledge enables you to develop effective solutions. To get a deep understanding of all dimensions, think about focus groups and other relevant details to provide the necessary insight into a particular question.

IV. Determine variable relationships

Scientific, social, and other studies often focus on creating a certain sequence of repeating behaviors over time. What does your project entail? Completing the entire process involves:

- Identifying the variables that affect possible solutions to your research problem;
- Deciding on the degree to which you can use and control all of them for study purposes;
- Determining functional relationships between existing variables;
- Choose the most critical variables for a solution of your research problem.

During the formulation stage, it's necessary to consider and generate as many potential approaches and variable relationships as you can.

V. Alternative approaches

Anticipate the possible consequences of alternative approaches

There are different consequences that each course of action or approach can bring, and that's why you need to anticipate them. Why communicate possible outcomes? It's a primary goal of any research process.

C) Basic Steps in Formulating a Research Problem

What is the most essential part of your research project? It is obviously the formulating of a research problem or selecting your research topic. This is because of the quality & relevancy of your research work completely depends on it. The process of formulating a research problem requires a series of steps. Look at 7 basic steps in formulating a research problem.

(i) Identify the Broad Study Area

This is a great idea to thinking about the subject area of your interest. You should identify the field in which you would like to work a long time after your academic study or graduation. It will help you tremendously to get an interesting research topic. For example- if you do

graduation in sociology, you must decide your research study area in sociology. You might choose social problems like unemployment, road accident, community health, HIV/AIDS, etc.

For example- if you do post graduation in Computer Science with specialisation in Cyber Security , you must decide your research study area in Cyber security. You might choose problems related with cyber threats, cyber crimes, cyber trends etc.

(ii) Dissect the Broad Study Area into Subareas

In this stage, you need to dissect and specify your research broad study area into some subareas. You would consult with your supervisor in this regard. Write down subareas. For example- if you select unemployment as your broad study area, then dissect it into unemployment & social stability, unemployment & crime, unemployment & individual frustration, etc. In this case, your research title maybe how unemployment produces criminal activities. Or how it creates frustration in mind among unemployed people.

For example- if you select Cyber security as your broad study area, then dissect it into network security, web security, database security related with cyber crime , etc.

(iii) Mark-up your Interest

It is almost impossible to study all subareas. That's why you must identify your area of interest. You should select issues in which you are passionate about. Your interest must be the most important determinant of your research study. Once you selected your research study of interest, you should delete other subareas in which you do not feel interested. Keep in mind that if you lose your interest in your research study it won't bring any results eventually.

(iv) Study Research Questions

In this step in formulating a research problem, you would point out your research questions under the area of interest as you decided in the previous stage. If you select unemployment as your study area, your questions might be "how unemployment impacts on individual social status?" "How it affects social stability?" "How it creates frustration on individuals?" Define what research problem or question you are going to study? The more you study the research problem it will be just as relevant and fruitful to solve the problem indeed.

(v) Set Out Objectives

Set out conspicuously your research root objectives and sub-objectives. Research objectives essentially come from research questions. If you do study "Impact of unemployment on individual social status" as your research problem or research question. Then, set out what would you like to explore to address. For Example- your main objective might be to examine the unemployment status in a particular society or state. And sub-objectives would be its effects on individuals' social life. Setting out specific main and sub-objectives are so crucial.

(vi) Assess your Objectives

Now, you should evaluate your objectives to make sure the possibility of attaining them through your research study. Assess your objectives in terms of time, budget, resources and technical expertise at your hand. You should also assess your research questions in light of

reality. Determine what outcome will bring your study. If you can assess accurately the purpose of the research study it will bring significant results in the long run. In fact, research objectives determine the value of the study you are going to work out.

(vii) Check Back

Before you go on research work you should review all steps in formulating a research problem and all the things that you have done till now for the purpose of your research study. Then, ask yourself about your enthusiasm. Do you have enough resources to step up? If you are quite satisfied, then you forward to undertake your research work. You can change any of your plans in the light of reality if it requires.