**The Reasearch Problem**

Systematic research begins with a research problem. In a classic work, John Dewey (1933) spoke of the fi rst step in the scientifi c method as the recognition of a felt diffi culty, an obstacle, or problem that puzzles the researcher. Your fi rst step in the research process is therefore to select a problem for investigation. Selecting and formulating a problem is one of the most important aspects of doing research in any fi eld. Beginning researchers are often surprised to fi nd that this initial stage can take up a large part of the total time invested in a research project. There is no way to do research until a problem is recognized, thought through, and articulated in a useful way.

A researcher must first decide on the general problem area. This step is often difficult for beginning researchers. Skill in doing research is to a large extent a matter of making wise choices about what to investigate. This skill takes time and repeated effort to develop, but the willing beginner can do it. In order to ask questions that research can answer, one should have knowledge or experience in an area. We often hear students in diffi cult courses say, “I don’t know enough to ask questions.” Similarly, unless a researcher has knowledge or experience in an area, he or she does not know what additional knowledge is needed or how to obtain it through empirical investigation. Furthermore, the question chosen for investigation should hold deep interest or be one about which the researcher is really curious. The choice must necessarily be very personal or else the researcher may find it difficult to muster the motivation to carry the research through to its end. Find a question that intrigues you and you will enjoy the search for a solution. After having chosen the general area of investigation, the researcher then narrows it down to a specific statement of the research question. What specifi cally do you want to know or what do you want to predict? Unlikely as it may seem, once the researcher has selected a problem area and clearly articulated a question or statement, he or she has accomplished one of the most diffi cult phases of the research process.

1. **What is a Research Problem ?**

The identification of the research problem is the first step in the research process. It is similar to the identification of the destination before a journey. It works as the foundation for the whole [research process](https://www.projectguru.in/services/research-paper/research-methodology/). It helps in narrowing down the issue to something reasonable for conducting a study. Defining a research problem serves three main purposes:

* It presents the importance of the research topic.
* It helps the researcher place the problem in a specific context to properly define the parameters of the investigation.
* It provides a framework that can help in presenting the results in the future.

In absolute terms, a research problem can be defined as a statement regarding the area of concern, a condition that needs to be improved, an unresolved question that exists in the literature, a difficulty that needs to be eliminated or any point that needs some meaningful investigation (Gallupe, 2007).

A research problem is a specific issue, difficulty, contradiction, or gap in knowledge that you will aim to address in your research. You might look for practical problems aimed at contributing to change, or theoretical problems aimed at expanding knowledge.

A research problem is a statement that addresses a gap in knowledge, challenge or contradiction in your field. Scientists use research problems to identify and define the aim of their study and analysis. You may decide to conduct research based on a problem if you're interested in contributing to social or scientific change or adding additional knowledge to an existing topic. A research problem may also help identify key concepts and terms, overarching questions and variables

## Why is a research problem important?

Having a well-defined and practical research problem is important to help you create a focused and comprehensive project. A research problem may help to ensure that your project is innovative and unique and that you're conducting research with an intentional purpose and justification.

Research problems help you create a plan for contributing relevant and new insights about a particular challenge or issue. It's also important because it can help you identify steps to take in the data-collection process and outline the research procedure.

**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.

**Problem statements should possess the following attributes:**

* Clarity and precision [a well-written statement does not make sweeping generalizations and irresponsible statements],
* Identification of what would be studied, while avoiding the use of value-laden words and terms,
* Identification of an overarching question and key factors or variables,
* Identification of key concepts and terms,
* Articulation of the study's boundaries or parameters,
* Some generalizability in regards to applicability and bringing results into general use,
* Conveyance of the study's importance, benefits, and justification [regardless of the type of research, it is important to address the “so what” question by demonstrating that the research is not trivial],
* Does not have unnecessary jargon; and,
* Conveyance of more than the mere gathering of descriptive data providing only a snapshot of the issue or phenomenon under investigation.
* An indication of the central focus of the study, and
* An explanation of the study's significance or the benefits to be derived from an investigating the problem.

**II.  Sources of Problems for Investigation**

Identifying a problem to study can be challenging, not because there is a lack of issues that could be investigated, but due to pursuing a goal of formulating a socially relevant and researchable problem statement that is unique and does not simply duplicate the work of others. To facilitate how you might select a problem from which to build a research study, consider these three broad sources of inspiration:

**PersonalExperience**
Your everyday experiences can give rise to worthwhile problems for investigation. Think critically about your own experiences and/or frustrations with an issue facing society, your community, or in your neighborhood. This can be derived, for example, from deliberate observations of certain relationships for which there is no clear explanation or witnessing an event that appears harmful to a person or group or that is out of the ordinary.

**RelevantLiterature**
RELATED LITERATURE Another valuable source of problems is the published literature in your area of interest. In published research, you will fi nd examples of research problems and the methods used to solve them. A review of related literature may help in the following ways: 1. You may fi nd a study that needs to be replicated. You can repeat someone else’s study, not exactly, but with some variation. You might use a different age group, different setting, or a different methodology. A study might even become a cross-cultural one to determine if the conclusions from research in one culture apply in other cultures. You need not be concerned that you are merely replicating a study rather than doing some new, groundbreaking research. Replication is a worthwhile activity because it provides more evidence of the validity of the original fi ndings. As studies are repeated at different times and in different places, with the findings supported in each study, we can have increasing confi dence in the scientifi c validity of the fi nding.

The selection of a research problem can often be derived from an extensive and thorough review of pertinent research associated with your overall area of interest. This may reveal where gaps remain in our understanding of a topic. Research may be conducted to: 1) fill such gaps in knowledge; 2) evaluate if the methodologies employed in prior studies can be adapted to solve other problems; or, 3) determine if a similar study could be conducted in a different subject area or applied to different study sample [i.e., different groups of people]. Also, authors frequently conclude their studies by noting implications for further research; this can also be a valuable source of problems to investigate.

**III.  What Makes a Good Research Problem?**

After you have tentatively selected a question that interests you, you need to ask if it is a question that warrants an expenditure of time and effort to investigate. The following are criteria that one can use to evaluate a research problem:

1. **The problem should have significance**—that is, it should be one whose solution will make a contribution to theory or practice. The problem may fill in gaps in current knowledge or help resolve some of the inconsistencies in previous research. You should be able to answer the question “So what?” with respect to your proposed study.

2. **The problem should be one that will lead to new problems and so to further research**. A good study, while arriving at an answer to one question, usually generates a number of other questions that need investigation. Avoid trivial problems that have little or no relationship to theory or previous research. We suggest that a beginning researcher consider selecting a problem that could possibly be expanded or followed up later in a master’s thesis or even a doctoral dissertation. It may be helpful if students familiarize themselves with the research efforts of their professors, who not only can suggest related problems needing investigation but also may later serve as a mentor or a doctoral committee member.

**3. The problem must be researchable.** Although this criterion would seem self-evident, in practice, many proposed problems are not researchable. A researchable problem is one that can be attacked empirically; that is, it is possible to gather data that answer the question.

**4. The problem should be suitable for the researcher.** The problem may be excellent from the standpoint of the previous criteria but inappropriate for the individual. First, the problem should be one in which you, the researcher, have a genuine interest and about which you can be enthusiastic. In addition to interest, one must have the necessary research skills to carry the study through to completion. One may have to develop and validate instruments or do complex statistical analyses. Another consideration is whether you will have access to participants and the data necessary to answer the research question. Lastly, one should choose a problem that can be investigated in the allotted time and with the resources available. Do not select a problem that is too large or too involved, and be sure to allow adequate time for constructing instruments, administering instruments, conducting interviews or observations, analyzing data, and writing the report.

5. **The problem should be ethically appropriate.** That is, the problem should be one that you can investigate without violating ethical principles. Unlike researchers in the physical sciences, educational researchers are dealing with human subjects with feelings, sensitivities, and rights who must be treated ethically.

**Considerations in Selecting a Research Problem**

When selecting a research problem for your study, there are a few factors which you need to consider. These factors will ensure that your research process is more manageable and you will remain motivated. Table 4.1 below shows the factors to consider in selecting a research problem.

1. Interest : The most important criterion in selecting a research problem. The whole research process is normally time consuming and a lot of hard work is needed. If you choose a topic which does not greatly interest you, it would become difficult to keep up the motivation to write.

2. Expertise : Before selecting a research problem, you need to ensure that you met certain level of expertise in the area you are proposing. Make use of the facts you learned during the study and of course your research supervisors will lend a hand as well. Remember, you need to do most of the work yourself.

3. Data availability : If your research title needs collection of information (journal, reports,proceedings) before finalising the title, you need to make sure you have these materials available and in the relevant format.

4. Relevance : Always choose a topic that suits your interest and profession. Ensure that your study adds to the existing body of knowledge. Of course, this will help you to sustain interest throughout the research period.

 5. Ethics : In formulating the research problem, you should consider some ethical issues as well. Sometimes, during the research period, the study population might be adversly affected by some questions. Therefore, it is always good for you to identify ethics related issues during the research problem formulation itself.

**NOTE:**  Do not confuse a research problem with a research topic. A topic is something to read and obtain information about whereas a problem is something to solve or framed as a question that must be answered.