

## **Research Design:**

Research approach and research design are two terms that are frequently used interchangeably. A research design is the frame work or guide used for the planning, implementation, and analysis of a study.

It is a systematic plan of what is to be done, how it will be done, how the data will be analyzed. Research design basically provides an outline of how the research will be carried out and methods that will be used.

## **Meaning of research design:**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

## **Definition:**

A research design is a broad plan that states objectives of research project and provides the guidelines what is to be done to realise those objectives. It is a plan structured and strategy of investigation of answering the research question

Research design is the framework of research methods and techniques chosen by a researcher. The design allows researchers to hone in on research methods that are suitable for the subject matter and set up their studies up for success.

It is a overall plan or blue print, the researcher select to carry out their study. It is a master plan for executing a research project.

The research design is a framework for planning your research and answering your research questions. Creating a research design means making decisions about:

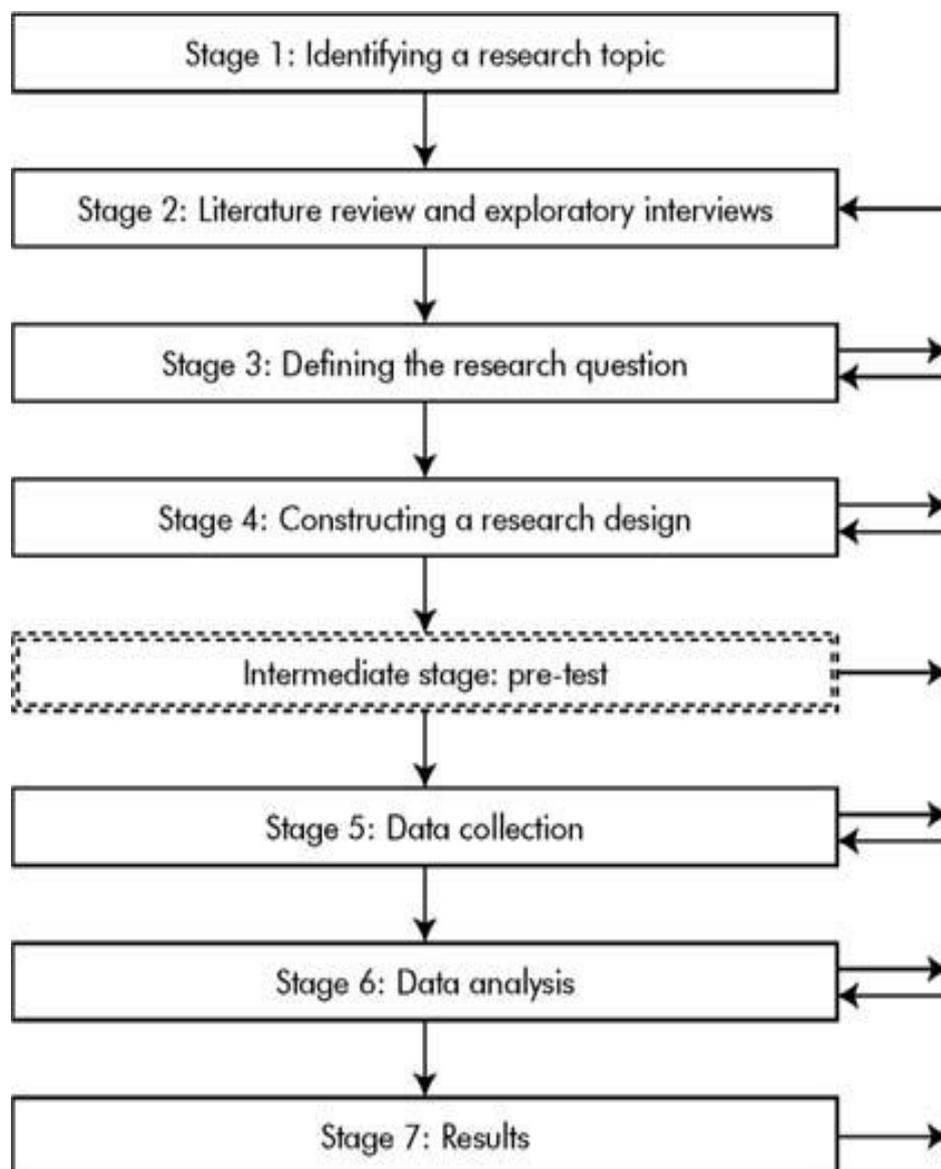
- The type of data you need
- The location and timescale of the research
- The participants and sources
- The variables and hypotheses (if relevant)
- The methods for collecting and analyzing data

The research design sets the parameters of your project: it determines exactly what will and will not be included. It also defines the criteria by which you will evaluate your results and draw your conclusions. The reliability and validity of your study depends on how you collect measure, analyze, and interpret your data.

## Features of a Good Research Design:

A research design appropriate for a particular research problem, usually involves the consideration of the following factors.

- The means of obtaining information.
- The availability and skills of the researcher and his staff, if any.
- The objective of the problem to be studied.
- The availability of time and money for the research work.
- The nature of the problem to be studied.



Outline Figure of Research Design

An impactful research design usually creates a minimum bias in data and increases trust in the accuracy of collected data. A design that produces the least margin of error in experimental research is generally considered the desired outcome. The essential elements of the research design are:

1. Accurate purpose statement
2. Techniques to be implemented for collecting and analyzing research
3. The method applied for analyzing collected details
4. Type of research methodology
5. Probable objections for research
6. Settings for the research study
7. Timeline
8. Measurement of analysis

Proper research design sets your study up for success. Successful research studies provide insights that are accurate and unbiased. You'll need to create a survey that meets all of the main characteristics of a design. There are four key characteristics of research design:

### **Neutrality:**

When you set up your study, you may have to make assumptions about the data you expect to collect. The results projected in the research design should be free from bias and neutral. Understand opinions about the final evaluated scores and conclusion from multiple individuals and consider those who agree with the derived results.

### **Reliability:**

With regularly conducted research, the researcher involved expects similar results every time. Your design should indicate how to form research questions to ensure the standard of results. You'll only be able to reach the expected results if your design is reliable.

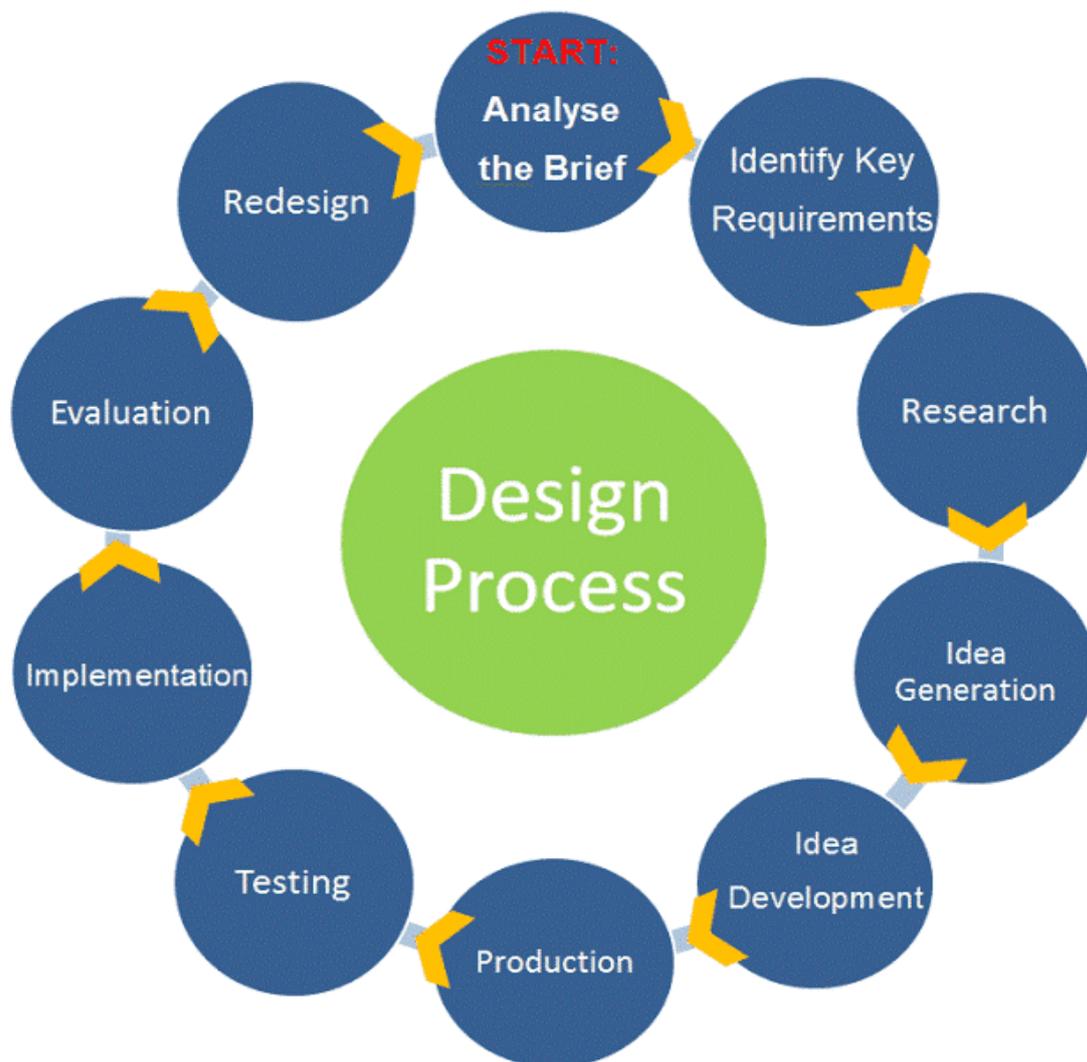
### **Validity:**

There are multiple measuring tools available. However, the only correct measuring tools are those which help a researcher in gauging results according to the objective of the research. The questionnaire developed from this design will then be valid.

## Generalization:

The outcome of your design should apply to a population and not just a restricted sample. A generalized design implies that your survey can be conducted on any part of a population with similar accuracy.

The above factors affect the way respondents answer the research questions and so all the above characteristics should be balanced in a good design.



Steps in Research Design