- **What is research design?**

Research design is the method that a researcher selects to organize their research project or study. Research designs can provide instructions for collecting, analysing and measuring data effectively. Using a research design is important because:

➢ It can help you ensure that your research addresses your research problem.

➢ It acts as an outline and guide for the entire research project.

➢ It can help you organize all the different components of your research project.

You can choose an effective research design by considering your research problem, which is the specific topic or knowledge gap that your research aims to address. Usually, researchers include their research question and research design selection in the introduction of their research paper.

1. **Types of Research Design:**

There are several ways to distinguish research design. Depending on the method and purpose of design, we can categorize research design in to five types:

1. Descriptive Design-

In this hypothesis-based design methodology, the researcher primarily describes the subject matter central to the research. Descriptive research design applies to natural observations, case studies, and surveys. This method involves data collection, data analysis, and its presentation. It allows the researcher to put forth the problem to persuade others to comprehend the necessity for the research.

2. Correlational Design-

True to its name, correlational research design enables the researchers to establish relationships between two related variables. This type of research design method needs at least two data groups. This method can be utilized for observational studies.

3. Experimental Design-

Be it a quasi-experiment, a field, or a controlled experiment, this research design type establishes a clear cause and the effect of any event. The researcher studies the impact of the independent variable on the dependent variable.

4. Diagnostic Design-

In diagnostic research design, the researchers strive to explore the underlying reason for the occurrence of certain circumstances. This method can assist you in examining in depth the elements that cause specific challenges that your customers may face. The design generally comprises three phases, namely the problem inception phase, problem diagnosis phase, and the problem solution phase.

5. Explanatory Design-

As the name suggests, explanatory design is utilized by researchers to explore, expand and explain theories and innovative ideas. This design method is applied to find the missing pieces of a puzzle or obtain clarity on vague aspects of a certain topic.