

Types of Research Designs PDF

The 5 Types of Research Designs

Now that we know the broadly classified types of research, Quantitative and Qualitative Research can be divided into the following 4 major types of Research Designs:

- Descriptive Research Design
- Correlational Research Design
- Experimental Research Design
- Diagnostic Research Design
- Explanatory Research Design

These 5 types of Research Designs are considered the closest and exact to true experiments and are preferred in terms of accuracy, relevance as well as quality.

Descriptive Research Design

In Descriptive Research Design, the scholar explains/describes the situation or case in depth in their research materials. This type of research design is purely on a theoretical basis where the individual collects data, analyses, prepares and then presents it in an understandable manner. It is the most generalised form of research design. To explore one or more variables, a descriptive design might employ a wide range of research approaches. Unlike in experimental research, the researcher does not control or change any of the variables in a descriptive research design; instead, he or she just observes and measures them. In other words, while qualitative research may also be utilised for descriptive reasons, a descriptive method of research design is typically regarded as a sort of quantitative research. To guarantee that the results are legitimate and dependable, the study design should be properly constructed. Here are some examples for the descriptive design of research type:

- How has the Delhi housing market changed over the past 20 years?
- Do customers of company A prefer product C or product D?
- What are the main genetic, behavioural and morphological differences between Indian wild cows and hybrid cows?
- How prevalent is disease 1 in population Z?

Experimental Research Design

Experimental research is a type of research design in which the study is carried out utilising a scientific approach and two sets of variables. The first set serves as a constant against which the variations in the second set are measured. Experimentation is used in quantitative research methodologies, for example. If you lack sufficient evidence to back your conclusions, you must first establish the facts. Experimental research collects data to assist you in making better judgments. Experimentation is used in any research undertaken under scientifically appropriate settings. The effectiveness of experimental investigations is dependent on researchers verifying that a variable change is due only to modification of the constant variable. The study should identify a noticeable cause and effect. The traditional definition of experimental design is "the strategies employed to collect data in experimental investigations." There are three types of experimental designs:

- Pre-experimental research design
- True experimental research design
- Quasi-experimental research design

Correlational Research Design

A correlational research design looks into correlations between variables without allowing the researcher to control or manipulate any of them. Correlational studies reveal the magnitude and/or direction of a link between two (or more) variables. Correlational studies or correlational study design might have either a positive, negative or zero.

Correlational Studies Direction or Types	What Happens?	Example
Positive correlation	Both variables change in the same direction	As the prices of petrol increase, the fare of auto increases too.
Negative correlation	The variables change in opposite directions	As tea consumption increases, tiredness decreases
Zero correlation	There is no relationship between the variables	Tea consumption is not correlated with height

Correlational research design is great for swiftly collecting data from natural settings. This allows you to apply your results to real-world circumstances in an externally legitimate manner. Correlational studies research is a viable choice in a few scenarios like:

- To investigate non-causal relationships
- To explore causal relationships between variables
- To test new measurement tools

Diagnostic Research Design

Diagnostic research design is a type of research design that tries to investigate the underlying cause of a certain condition or phenomenon. It can assist you in learning more about the elements that contribute to certain difficulties or challenges that your clients may be experiencing. This design typically consists of three research stages, which are as follows:

- Inception of the issue
- Diagnosis of the issue
- Solution for the issue

Explanatory Research Design

Explanatory research is a method established to explore phenomena that have not before been researched or adequately explained. Its primary goal is to notify us about where we may get a modest bit of information. With this strategy, the researcher obtains a broad notion and use research as a tool to direct them more quickly to concerns that may be addressed in the future. Its purpose is to discover the why and what of a subject under investigation. In short, it is a type of research design that is responsible for finding the *why* of the events through the establishment of cause-effect relationships. The most popular methods of explanatory research are:

- Literature research
- In-depth interview
- Focus groups
- Case studies