

HISTORICAL RESEARCH



MEANING

A systematic study of **past events, records and developments** to understand the **present** and **predict the future**. It answers the question “**What was?**”



KEY FEATURES

- Based on past records; variables **cannot be manipulated**.
- Data are not collected directly; taken from **existing sources**.
- Researcher is **not a participant or observer** of the events.
- **Ex post facto** (after the fact) in nature.



SOURCES OF DATA



Primary Sources

Original, first-hand sources.



Secondary Sources

Second-hand accounts.



HISTORICAL CRITICISM



External Criticism

Checks whether the source is **authentic** (genuine or forged, who wrote it, when).



Internal Criticism

Checks whether the content is **credible** and what it actually means (accuracy, bias, reliability of the author).



STEPS

1

Identify the problem

2

Formulate the hypothesis

3

Collect data (sources)

4

External & internal criticism

5

Interpretation and synthesis

6

Report writing



LIMITATIONS

- Incomplete or biased records
- No experimental control
- Subjectivity in interpretation
- Hypotheses are hard to test



EXAMPLES

- History of women's education in India
- Growth of the university system in ancient India

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DESCRIPTIVE RESEARCH

DESCRIBES WHAT IS



MEANING

Describes the **present status** of a phenomenon, **“what is”**, without manipulating variables. It is also called **non-experimental research**.



KEY FEATURES

- Studies **existing conditions**, practices, beliefs and trends.
- Involves **observation, description, analysis and interpretation**.
- Uses tools such as **questionnaires, interviews, rating scales** and checklists.



MAIN TYPES



1. SURVEY

Collects data from a large population or sample (e.g., opinion polls or census-type studies).



2. CASE STUDY

In-depth study of a single unit such as a person, school or community.



3. DEVELOPMENTAL STUDIES

Study growth and change over time.

- **Longitudinal**: same group over a long time.
- **Cross-sectional**: different age groups at one time.
- **Trend studies**: changes over time in a general population.



4. CORRELATIONAL STUDY

Finds the relationship between variables (does not prove causation).



5. CAUSAL-COMPARATIVE (EX POST FACTO) STUDY

Looks for causes of existing differences between groups.



6. CONTENT ANALYSIS

Systematic analysis of communication content such as textbooks, speeches and media.



7. DOCUMENTARY AND OBSERVATIONAL STUDIES

Use existing documents or direct observation to describe a phenomenon.



LIMITATIONS

- Cannot establish cause and effect.
- Prone to sampling and response bias.



EXAMPLES

- A survey of the study habits of Class 12 students.
- A case study of a school dropout.

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EXPERIMENTAL RESEARCH

ESTABLISHES CAUSE AND EFFECT



MEANING

The researcher deliberately manipulates one or more **independent variables** under controlled conditions and observes the effect on the **dependent variable**. It is the only method that can establish **cause and effect**. It answers the question “**What will be, if...?**”

ESSENTIAL FEATURES

1



MANIPULATION

Independent variable is deliberately changed.

2



CONTROL

Extraneous variables are controlled.

3



RANDOMIZATION

Random selection and assignment of subjects.

4



OBSERVATION AND MEASUREMENT

Effect is observed and measured.

5



REPLICATION

The study can be repeated.

KEY TERMS

Term	Meaning
Independent variable (IV)	Cause or treatment (manipulated)
Dependent variable (DV)	Effect or outcome (measured)
Extraneous variable	Uncontrolled variable that may affect the DV
Experimental group	Receives the treatment
Control group	Does not receive the treatment

BASIC IDEA

Manipulate Independent Variable (IV)



Controlled Conditions



Observe Effect on Dependent Variable (DV)



Cause and Effect

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TYPES OF EXPERIMENTAL DESIGNS



1

PRE-EXPERIMENTAL DESIGNS

The weakest type, with **no randomization**.



No randomization and no control group.

- **One-shot case study**
A single group is given the treatment and posttest only.
- **One-group pretest-posttest**
A single group is given pretest, treatment and posttest.
- **Static group comparison**
Two existing groups are compared after the treatment without pretest and randomization.

2

TRUE EXPERIMENTAL DESIGNS

Involves **randomization** and a **control group**.



Random assignment and control group.

- **Pretest-posttest control group design**
Both experimental and control groups are given pretest, treatment (only experimental group) and posttest.
- **Posttest-only control group design**
Both groups are given treatment (only experimental group) and posttest only.
- **Solomon four-group design**
Uses four groups to control the effect of pretesting.

3

QUASI-EXPERIMENTAL DESIGNS

Involves **no random assignment** of subjects.



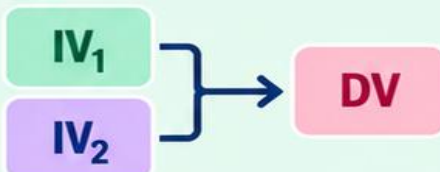
No random assignment, but uses a comparison group.

- **Non-equivalent control group design**
Uses existing groups (not randomly assigned) as experimental and control groups, with pretest and posttest.
- **Time-series design**
Repeated observations of a single group over time before and after the treatment.

4

FACTORIAL DESIGN

Studies **two or more independent variables** simultaneously, including their **interaction**.



- Examines the main effects of each independent variable.
- Also studies the interaction effect between the variables.
- Provides more comprehensive results in a single experiment.

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EXPERIMENTAL RESEARCH

SPECIAL EFFECTS, LIMITATIONS & EXAMPLE



SPECIAL EFFECTS

Specific effects observed in experimental studies that influence participants' behaviour or performance.

Hawthorne Effect



Participants perform differently because they **know they are being observed**.

Example

Students may score higher in an experimental group simply because they know they are part of a study and being observed.

Placebo Effect



Improvement occurs due to the **belief in the treatment**, not the treatment itself.

Example

Students show better performance after being given a "new learning strategy", even though it is a fake or inactive treatment.

John Henry Effect



Control group **works harder** because they know they are not receiving the treatment.

Example

In a study comparing a new teaching method, the control group may put in extra effort because they know they are not using the new method.

LIMITATIONS



Difficult to control all variables in human and social research.



Artificial settings can reduce generalizability.



Ethical issues can arise.

EXAMPLE

Testing the effect of a **new teaching method** (**independent variable**) on **student achievement** (**dependent variable**) with two randomly assigned groups.

Independent Variable (IV)

New teaching method

Experimental Group
(receives the new method)

Control Group
(receives the traditional method)

Dependent Variable (DV)

Student achievement

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