





#### What is Research Design?

- A plan for selecting the sources and types of information used to answer research questions
- A framework for specifying the relationships among the study variables
- A blueprint that outlines each procedure from the hypothesis to the analysis

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## Classifications of Designs

- Exploratory study is usually to develop hypotheses or questions for further research
- Formal study is to test the hypotheses or answer the research questions posed

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## Methods of Data Collection

- Monitoring, which includes observational studies
- Interrogation/communication studies

#### Power to Produce Effects

- In an experiment, the researcher attempts to control and/or manipulate the variables in the study
- In an ex post facto design, the researcher has no control over the variables; they can only report what has happened

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# Purpose of the Study

- Descriptive study tries to explain relationships among variables
- Causal study is how one variable produces changes in another

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## The Time Dimension

- Cross-sectional studies are carried out once and represent a snapshot of one point in time
- Longitudinal studies are repeated over an extended period

#### The Topical Scope

- Statistical studies attempt to capture a population's characteristics by making inferences from a sample's characteristics
- Case studies place more emphasis on a full contextual analysis of fewer events or conditions and their interrelations

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#### The Research Environment

- Field conditions
- · Laboratory conditions
- Simulations

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#### A Participant's Perceptions

- Usefulness of a design may be reduced when people in the study perceive that research is being conducted
- Participants' perceptions influence the outcomes of the research

Why do Exp	loratory	Stuc	lies
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 Exploration is particularly useful when researchers lack a clear idea of the problems

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# **Data Collection Techniques**

- Qualitative techniques
- Secondary data
- Focus groups
- Two-stage design

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## **Causation**

- The essential element of causation is
  - -A "produces" B

or

-A "forces" B to occur

Causal Study Relationships	
Symmetrical	
Reciprocal	
Asymmetrical	
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Asymmetrical Relationships	
Stimulus-Response	
Property-Disposition	
Disposition-Behavior	
Property-Behavior	
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Achieving the Ideal Experimental Design	
Control	
– Random Assignment	
– Matching	· <u> </u>
Randomization	
-Manipulation and control of variables	
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