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.

## CENTER FOR RESEARCH, INNOVATION & DATA MANAGEMENT

To pursue the university's commitment to quality, the Center for Research Innovation & Data Management of the Lyceum of the Philippines University, has become the vital instrument in achieving the mission – vision of the university through institutionalizing research and strengthening the research culture and capability.

The center aims to institutionalize research by doing the following functions:

- implement a sustainable research program for the institution as specified in the 5 year development plan;
- continuously serve as the central coordinating body which regulates, supervises, controls, evaluates and monitors the school's researches and recommends for dissemination and utilization;
- provide training and exposure for development to enhance research capability of school researchers;
- facilitate linkages with other institutions and find means to improve research capability, productivity, dissemination and utilization of research outputs;
- provide statistical services for student and faculty researchers.



# Selecting appropriate Research Design

CENTER FOR RESEARCH INNOVATION & DATA MANAGEMENT

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# 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 conclusions 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.

Pre-production

Production

Collecting

Data

Analyzing Data

Post-production

Publication Process

Pick a topic Translate topic into Question Translate into Hypothesis Preemption search

Research

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Approval for study via IRB Preparation to conduct study Recruiting subjects Conducting the study Coding and entering data

Deciding when to start writing paper
How to write psychology manuscripts
How to write in APA format
How to decide where to submit manuscript
Journal review process
Talks, posters, and other ways to disseminate your work

Selecting the methodological approach Operationalizing variables/materials Crafting procedures/paradigms Determining sample Evaluating the practicality of the research

Research

Design

Data preparation and screening Evaluating sample statistically Evaluating materials statistically Evaluating procedures statistically Analyzing research Hypothesis Interpreting the results

#### **RESEARCH DESIGN**

Qualitative research design:
determines relationships between
collected data and observations
based on mathematical calculations.
Theories related to a naturally
existing phenomenon can be proved
or disproved using statistical
methods. Researchers rely on
qualitative research design methods
that conclude "why" a particular
theory exists along with "what"
respondents have to say about it.



for cases where statistical conclusions to collect actionable insights are essential. Numbers provide a better perspective to make critical business decisions. Quantitative research design methods are necessary for the growth of any organization. Insights drawn from hard numerical data and analysis prove to be highly effective when making decisions related to the future of the business



### scan to read more about Research Design



**Descriptive:** describing the situation or case under their research study. It is a theory-based design method which is created by gathering, analyzing, and presenting collected data. This allows a researcher to provide insights into the why and how of research.



Experimental: establishes a relationship between the cause and effect of a situation. It is a causal design where one observes the impact caused by the independent variable on the dependent variable.



Correlational: a non-experimental research design technique that helps researchers establish a relationship between two closely connected variables This type requires two different groups. There is no assumption while evaluating a relationship between two different variables, and statistical analysis techniques calculate the relationship between them.



Diagnostic: evaluate the underlying cause of a specific topic or phenomenon. This design has three parts of the research: Inception of the issue, Diagnosis of the issue, Solution for the issue



Explanatory: uses a researcher's ideas and thoughts on a subject to further explore their theories. The research explains unexplored aspects of a subject and details about what, how, and why of research questions.