

E-Content

Research Methods

Semester: III

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Study Design in Quantitative Research

Study Design based on the Nature of the Investigation

On the basis of the nature of the investigation, study designs in quantitative research can be classified as:

experimental;

non-experimental;

quasi- or semi-experimental.

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Experimental, Non-Experimental and Quasi - Semi Experimental Design

Example:

the impact of a particular teaching method on the level of comprehension of students.

It is assumed to be a *cause-and-effect* relationship.

There are two ways of studying this relationship.

The first involves the researcher (or someone else) introducing the intervention that is assumed to be the 'cause' of change, and waiting until it has produced – or has been given sufficient time to produce – the change.

The second consists of the researcher observing a phenomenon and attempting to establish what caused it. In this instance the researcher starts from the effect(s) or outcome(s) and attempts to determine causation.

If a relationship is studied in the first way, starting from the cause to establish the effects, it is classified as an **experimental study**.

If the second path is followed – that is, starting from the effects to trace the cause – it is classified as a **non-experimental study**.

Experimental, Non-Experimental and Quasi - Semi Experimental Design

In the Experimental Study the independent variable can be 'observed', introduced, controlled or manipulated by the researcher or someone else.

whereas in the Non-Experimental study this cannot happen as the assumed cause has already occurred. Instead, the researcher retrospectively links the cause(s) to the outcome(s).

A **semi-experimental study** or **quasi-experimental study** has the properties of both experimental and non-experimental studies; part of the study may be non-experimental and the other part experimental.

Qualitative Research Design

Qualitative research design, on the other hand, is exploratory in nature as it tries to explore not predict the outcome.

It seeks to answer the questions what and how.

A *qualitative research design* is used to explore the meaning and understanding of complex social environments, like the nature of people's experience, using case studies. A *qualitative research design* shares similar characteristics with scientific research in the following ways.

The Longitudinal Study Design

An outline question stating the problem that needs to be solved.

Has a set order and procedure used to answer these questions?

Analyses the data generated.

Draws its conclusion after the data has been collated and analyzed so that the conclusion drawn from the findings are not predetermined.

Qualitative Research Designs

Case Studies

Open-ended Surveys

Oral history

Focus Groups

In-depth Interviews

Participant Observation

Ethnographic observation

Content Analysis

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Qualitative Research Designs

Case Study

A case could be an individual, a group, a community, an instance, an episode, an event, a subgroup of a population, a town or a city.

The total study population is treated as one entity.

In this design the attempt is not to select a random sample but a case that can provide as much information as possible to understand the case in its totality.

When studying an episode or an instance, one attempts to gather information from all available sources so as to understand it in its entirety.

If the focus of the study is a group or community one should spend sufficient time building a trustworthy rapport with its members before collecting any information about them.

Qualitative Research Designs

Open-ended Surveys

For example, a survey might be used to investigate not just which political candidates voters chose, but why they chose them, in their own words.

While many surveys are designed to generate quantitative data, many are also designed with open-ended questions that allow for the generation and analysis of qualitative data.

Oral history

The oral history method is used to create a historical account of an event, group, or community, and typically involves a series of in-depth interviews conducted with one or multiple participants over an extended period.

Qualitative Research Designs

Focus Groups

In a focus group, a researcher engages a small group of participants in a conversation designed to generate data relevant to the research question.

Focus groups can contain anywhere from 5 to 15 participants.

Social scientists often use them in studies that examine an event or trend that occurs within a specific community.

They are common in market research, too.

In- Depth Interviews

Researchers conduct in-depth interviews by speaking with participants in a one-on-one setting.

Sometimes a researcher approaches the interview with a predetermined list of questions or topics for discussion but allows the conversation to evolve based on how the participant responds.

Other times, the researcher has identified certain topics of interest but does not have a formal guide for the conversation, but allows the participant to guide it.

Qualitative Research Designs

Participant Observation

This method is similar to observation, however with this one, the researcher also participates in the action or events to not only observe others but to gain the first-hand experience in the setting.

Ethnographic Observation

Ethnographic observation is the most intensive and in-depth observational method.

Originating in anthropology, with this method, a researcher fully immerses themselves into the research setting and lives among the participants as one of them for anywhere from months to years.

By doing this, the researcher attempts to experience day-to-day existence from the viewpoints of those studied to develop in-depth and long-term accounts of the community, events, or trends under observation.

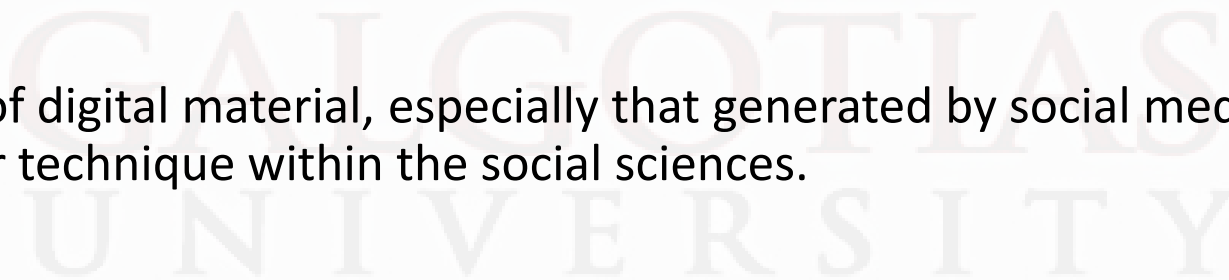
Qualitative Research Designs

Content Analysis

This method is used by sociologists to analyze social life by interpreting words and images from documents, film, art, music, and other cultural products and media.

The researchers look at how the words and images are used, and the context in which they are used to draw inferences about the underlying culture.

Content analysis of digital material, especially that generated by social media users, has become a popular technique within the social sciences.



References:

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Thank you



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