



Distinction between Quant & Qual Research

Dr. Syed Owais
Department of Sociology
University of Peshawar
Khyber Pakhtunkhwa, PAKISTAN

Characteristics of quantitative and qualitative research



Quantitative

1. Scientific
2. Positivist
3. Objective
4. Structuralism
5. Experimental
6. Macro events/processes/relations
7. Deductive
8. Hard/factual
9. Representative/generalisable
10. Apolitical
11. Realist

Qualitative

1. Naturalistic
 2. Interpretivist/hermeneutic
 3. Subjective
 4. Individualism
 5. Ethnographic
 6. Micro events/relations/processes
 7. Inductive
 8. Soft/anecdotal
 9. Selective/context or site-specific
 10. Critical/political
 11. Idealist/relativist/constructivist
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Sources: Franklin (1986), Punch (1998), Winchester (2000), Spencer *et al.* (2003).

Differences between quantitative and qualitative research.



Quantitative	Qualitative
Tests hypotheses	Research questions; Discovers meaning once the researcher becomes immersed in data.
Concepts are in the form of measurable variables	Concepts are often only measurable in that they are ideas that can be substantiated by observation or interviews
Measures are created before data collection and are standardized	Measures are created in an ad hoc manner and are often specific to the setting or the researcher.

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Quantitative	Qualitative
Data are in the form of numbers from precise measurement	Data are in the form of words and images from documents, observations, and transcripts.
Procedures are standard. It's assumed that the study will be repeated.	Research procedures are specific to the setting or participants and probably can not be replicated.
Analysis uses statistics, tables, and charts and discusses how what they show relates to the hypothesis.	Analysis involves extracting themes from evidence and organizing data into themes and categories to present a coherent, consistent picture.



Quantitative Paradigm

- ▶ “an inquiry into a social or human problem based on testing a theory composed of variables, measured with numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory hold true.”

(Creswell, J. *Research Design: Qualitative and Quantitative Approaches*. Sage: 1994.)

"a formal, objective, systematic process in which numerical data are utilized to obtain information about the world"

(Burns & Grove, as cited by Cormack, 1991, p. 140).

Characteristics of Quantitative Studies



- ▶ Quantitative research is about quantifying the relationships between variables.
 - We measure them, and
 - construct statistical models to explain what we observed.
- ▶ The researcher knows in advance what he or she is looking for.
- ▶ Goal: Prediction, control, confirmation, test hypotheses.

Characteristics of Quantitative Studies



- ▶ All aspects of the study are carefully designed before data are collected.
- ▶ Quantitative research is inclined to be *deductive* -- it tests theory. This is in contrast to most qualitative research which tends to be inductive --
– it generates theory
- ▶ The researcher tends to remain objectively separated from the subject matter.

Major Types of Quantitative Studies



- ▶ Descriptive research
 - Correlational research
 - Evaluative
 - Meta Analysis
- ▶ Causal-comparative research
- ▶ Experimental Research
 - True Experimental
 - Quasi-Experimental



Two of these approaches are considered distinct paradigms (i.e. models or worldviews)

- ▶ Qualitative (inductive method; incorporates values and perspectives of both researcher and participants).
- ▶ Quantitative (deductive – reasoning from general theories to specific instances. Researchers are supposed to be objective.)



Quantitative or explanatory studies focus on causal relationships and

- ▶ Have at least two variables
- ▶ Is used to prove or disprove whether there is a causal relationship between two variables.
- ▶ Can be expressed as a prediction or an expected future outcome.
- ▶ Is logically linked to a research question or theory.