

SWRK5001

Unit-III, Research Design & Sampling

**Dr. Anupam Kumar Varma,
Assistant Professor,
Department of Social Work,
Mahatma Gandhi Central University
Motihari, Bihar– 848401.**



SWRK5001

Unit-III, Research Design & Sampling

Topic- Differences Between

Quantitative Research & Qualitative Research

Research

- Research is the process of collecting, analyzing, and interpreting data in order to understand a phenomenon (Leedy & Ormrod).
- Research is a logical and systematic search for new and useful information on a particular topic.
- According to English dictionary research is defined as The systematic investigation and study of materials and sources in order to establish facts and reach new conclusions.
- Research is defined as Systematic investigative process employed to increase or revise current knowledge by discovering new facts.

Research methods in social sciences are often divided into two main types:

- Quantitative and
- Qualitative methods.

Quantitative Research

- Aliaga and Gunderson (2002), describes Quantitative research is 'Explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics).'
- It is numerical, non-descriptive, applies statistics or mathematics and uses numbers.
- It is an iterative process whereby evidence is evaluated.
- The results are often presented in tables and graphs.
- It is conclusive.
- It investigates the what, where and when of decision making.

Qualitative Research

- Creswell (2003) defines qualitative research as the process of understanding a social or human phenomenon, based on methodological research traditions.
- It is non-numerical, descriptive, applies reasoning and uses words.
- Its aim is to get the meaning, feeling and describe the situation.
- Qualitative data cannot be graphed.
- It is exploratory.
- It investigates the why and how of decision making.

QUALITATIVE VERSUS QUANTITATIVE RESEARCH

Criteria	Qualitative Research	Quantitative Research
Purpose	To understand & interpret social interactions.	To test hypotheses, look at cause & effect, & make predictions
Group Studied	Smaller & not randomly selected.	Larger & randomly selected.
Variables	Study of the whole, not variables.	Specific variables studied
Type of Data Collected	Words, images, or objects.	Numbers and statistics.
Form of Data Collected	Qualitative data such as open-ended responses, interviews, participant observations, field notes, & reflections.	Quantitative data based on precise measurements using structured & validated data-collection instruments.
Type of Data Analysis	Identify patterns, features, themes.	Identify statistical relationships.
Objectivity and Subjectivity	Subjectivity is expected.	Objectivity is critical.

Criteria	Qualitative Research	Quantitative Research
Scientific Method	Exploratory or bottom–up: the researcher generates a new hypothesis and theory from the data collected.	Confirmatory or top-down: the researcher tests the hypothesis and theory with the data.
Results	Particular or specialized findings that is less generalizable.	Generalizable findings that can be applied to other populations.
Role of Researcher	Researcher & their biases may be known to participants in the study, & participant characteristics may be known to the researcher.	Researcher & their biases are not known to participants in the study, & participant characteristics are deliberately hidden from the researcher (double blind studies).
View of Human Behavior	Dynamic, situational, social, & personal.	Regular & predictable.
Most Common Research Objectives	Explore, discover, & construct.	Describe, explain, & predict.

Cont...

Criteria	Qualitative Research	Quantitative Research
Focus	Wide-angle lens; examines the breadth & depth of phenomena.	Narrow-angle lens; tests a specific hypotheses.
Nature of Observation	Study behavior in a natural environment.	Study behavior under controlled conditions; isolate causal effects.
Nature of Reality	Multiple realities; subjective.	Single reality; objective.
Final Report	Narrative report with contextual description & direct quotations from research participants.	Statistical report with correlations, comparisons of means, & statistical significance of findings.

The Differences can be explained

Qualitative Research	Quantitative Research
the techniques for methodology are often times unstructured or semi-structured	Quantitative research which uses highly structured, rigid techniques.
Qualitative research allows unlimited expression from respondents	quantitative research relies on responses to pre-formulated questions
Qualitative research is typically exploratory and/or investigative in nature. It involves a continual interplay between theory and analysis and its findings are often not conclusive. However, these findings are valuable in developing a deep understanding of a given thematic complex and sound rationale for further decision making.	Quantitative research is statistical in nature. It employs different forms of statistical tools and it is empirical in nature

Cont....

Qualitative Research	Quantitative Research
inquiries in qualitative researches are usually subjective and biased (since humans and opinions are involved)	for quantitative research, inquiries are objective and unbiased
The foundation of Qualitative research is to seek understanding about participants' experiences.	quantitative research's basic idea is to seek measurable, observable data on variables.
Qualitative research is concerned with critical epistemology which (in other words) is called an interpretivist-constructivist approach . Critical epistemology reveals social science is fundamentally different from hard science in that it requires the interpretative approach through the study of texts, meanings and context. (Gunter 2002: 1-5).	Quantitative research is however connected to a positivist epistemology . The nature of social reality for positivists is that: empirical facts exist apart from personal ideas or thoughts; they are governed by laws of cause and effect; patterns of social reality are stable and knowledge of them is additive (Crotty, 1998; Neuman, 2003).

Cont....

Qualitative Research

In qualitative research, data largely comprises of texts and pictures.

Qualitative research follows the path of **constructionism** which can also be termed as interpretive. To them reality is seen as a human construct and the research findings in qualitative methodology are usually reported descriptively using words (Mutch, 2005).

Quantitative Research

in quantitative research, the data are in numbers and empirical in nature.

Quantitative research follows the path of **objectivism** in which the researcher sees himself as independent and unattached. In the epistemological context, the researcher is a positivist who is only exploring the nature of reality.

References-

- Leedy, P. & Ormrod, J. (2001). Practical research: Planning and design (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall. Thousand Oaks: SAGE Publications.
- Kothari, C. R. (2004). Research Methodology: Methods and techniques. New Age International Publishers.
- Aliaga, M. and Gunderson, B. (2002) Interactive Statistics. *Saddle River*, p3-15.
- Creswell, J.W. (2003) Qualitative, Quantitative, and mixed methods approaches. 2nd Edition. London: SAGE Publications.
- Johnson, B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches* (p. 34). Thousand Oaks, CA: Sage Publications.
- Lichtman, M. (2006). Qualitative research in education: A user's guide (pp. 7-8). Thousand Oaks, CA: Sage Publications.
- Gunter, B. (2002) .The quantitative research process, Klaus Bruhn Jensen (ed.) A Handbook of Media and Communications Research. Routledge: London.
- Crotty, M. (1998). The Foundations of Social Research: Meaning and Perspective in the Research Process. Australia: Allen and Unwin.
- Neuman, W., L. (2003). Social Research Methods: Qualitative and Quantitative Approaches(5th ed.). Boston: Allyn and Bacon.
- Mutch, C. (2005) Doing Educational Research: A Practitioner's Guide to Getting Started. Wellington: NZCER Press.

THANK YOU