

Issues in Social Research

**Prof Ajai Pratap Singh
Dept. of Applied Psychology
VBS Purvanchal University Jaunpur
Uttar Pradesh**

Email: ajaisingh27@gmail.com

Goals of scientific research

- The goal of scientific research is to discover laws and postulate theories that can explain natural or social phenomena.
- We arrive at scientific laws or theories through a process of logic and evidence. Logic (theory) and evidence (observations)
- In science, theories and observations are interrelated and cannot exist without each other. Theories provide meaning and significance to what we observe, and observations help validate or refine existing theory or construct new theory.
- Any other means of knowledge acquisition, such as faith or authority cannot be considered science.

Science in Social Science Research

- The scientific method, as applied to social sciences, includes a variety of research approaches, tools, and techniques, for collecting and analysing qualitative or quantitative data.
- These methods include laboratory experiments, field surveys, case research, ethnographic research, action research, and so forth. However, these scientific method operates primarily at the empirical level of research, i.e., how to make observations and analyze these observations.
- Very little of this method is directly pertinent to the theoretical level, which is really the more challenging part of scientific research.

Paradigms of Social Research

- Our design and conduct of research is shaped by our mental models or frames of references that we use to organize our reasoning and observations. These mental models or frames (belief systems) are called paradigms.
- The word “paradigm” was popularized by **Thomas Kuhn (1962)** in his book **The Structure of Scientific Revolutions**, where he examined the history of the natural sciences to identify patterns of activities that shape the progress of science.
- Similar ideas are applicable to social sciences as well, where a social reality can be viewed by different people in different ways, which may constrain their thinking and reasoning about the observed phenomenon.

Positivism

- Positivism, based on the works of French philosopher **Auguste Comte** (1798- 1857), was the dominant scientific paradigm until the mid-20th century.
- It holds that science or knowledge creation should be restricted to what can be **observed and measured**.
- Positivism tends to rely exclusively on theories that can be **directly tested**.

Post-Positivism

- Frustrations with the strictly empirical nature of positivist philosophy led to the development of post-positivism (or postmodernism) during the mid-late 20th century.
- Post-positivism argues that one can make reasonable inferences about a phenomenon by combining empirical observations with logical reasoning. Post-positivists view **science as not certain** but **probabilistic** (i.e., based on many contingencies), and often seek to explore these contingencies to understand social reality better.
- The post-positivist camp has further fragmented into **subjectivists**, who view the world as a subjective construction of our subjective minds rather than as an objective reality, and **critical realists**, who believe that there is an external reality that is independent of a person's thinking but we can never know such reality with any degree of certainty.

Ontology and Epistemology

- Burrell and Morgan (1979), in their seminal book *Sociological Paradigms and Organizational Analysis*, suggested that the way social science researchers view and study social phenomena is shaped by two fundamental sets of philosophical assumptions: ontology and epistemology.
- Ontology refers to our assumptions about **how we see the world**, e.g., does the world consist mostly of social order or constant change.
- Epistemology: Theory of knowledge concerned with understanding how knowledge is defined, valued, and prioritised. It refers to **our assumptions about the best way to study the world**, e.g., should we use an objective or subjective approach to study social reality. Using these two sets of assumptions, we can categorize social science research as belonging to one of four categories.

Functionalism, interpretivism

- Study patterns of ordered events or behaviors, and believe that the best way to study such a world is using objective approach (epistemology) that is independent of the person conducting the observation or interpretation, such as by using standardized data collection tools like surveys, then they are adopting a **paradigm of functionalism**.
- However, if they believe that the best way to study social order is through the subjective interpretation of participants involved, such as by interviewing different participants and reconciling differences among their responses using their own subjective perspectives, then they are employing an **interpretivism paradigm**.

- If researchers believe that the world consists of radical change and seek to understand or enact change using an objectivist approach, then they are employing a **radical structuralism paradigm**. If they wish to understand social change using the subjective perspectives of the participants involved, then they are following a **radical humanism paradigm**.
- To date, the majority of social science research has emulated the natural sciences, and followed the functionalist paradigm.

- Functionalists believe that social order or patterns can be understood in terms of their functional components, and therefore attempt to break down a problem into small components and studying one or more components in detail using objectivist techniques such as surveys and experimental research.
- However, with the emergence of post-positivist thinking, a small but growing number of social science researchers are attempting to understand social order using subjectivist techniques such as interviews and ethnographic studies.

QUANTITATIVE METHODS

- Quantitative research involves the collection and analysis of data that can be **presented numerically, or codified and subjected to statistical testing.** Its primary role is to allow the collection, analysis and development of **understandings and interpretations of data on social phenomena from large groups or large data sources.**
- Quantitative research is commonly associated with **standard Western research scientific methods, but this association is limited to the shared usage of statistical analysis to demonstrate and measure associations between different concepts.**
- Quantitative methods can be incorporated into a range of methodologies. Major quantitative methods include gathering data through **surveys, questionnaires, and structured interviews.**

Assumptions Underlying Quantitative Methods

- Reality is objective, “out there,” and independent of the researcher -- therefore reality is something that can be studied objectively;
- The researcher should remain distant and independent of what is being researched; & the values of the researcher do not interfere with, or become part of, the research -- research is value-free;
- Research is based primarily on deductive forms of logic and theories and hypotheses are tested in a cause-effect order; and
- The goal is to develop generalizations that contribute to theory that enable the researcher to predict, explain, and understand some phenomenon.

Quantitative Research – Approaches to Experimental Design

Type of Design	Key Focus & Control of Variables	Intervention Applied?	Example	Common Study Designs
Descriptive	Observational; Describe “what is”; Variables not controlled	No	A description of teenagers’ attitudes towards smoking.	Comparative descriptive design; Cross-sectional designs, Longitudinal designs
Correlational	Explores and observes relationships among variables; Variables not controlled	No	A study of the relationship between IQ and clinical depression.	Descriptive correlation designs; predictive designs, and model-testing designs
Quasi-Experimental	Tests for causality with suboptimal variable control; Independent variable not manipulated	Yes	A study of the effect of an after school physical activity program on childhood obesity rates.	Pre- and Post-test designs; Post-test only designs; Interrupted times-series designs
Experimental	Tests causality with optimal variable control; Independent variable is manipulated	Yes	A study of the effects of a new diet treatment plan on insulin levels in diabetics.	Classic experimental designs; randomized designs, Crossover designs, Nested designs

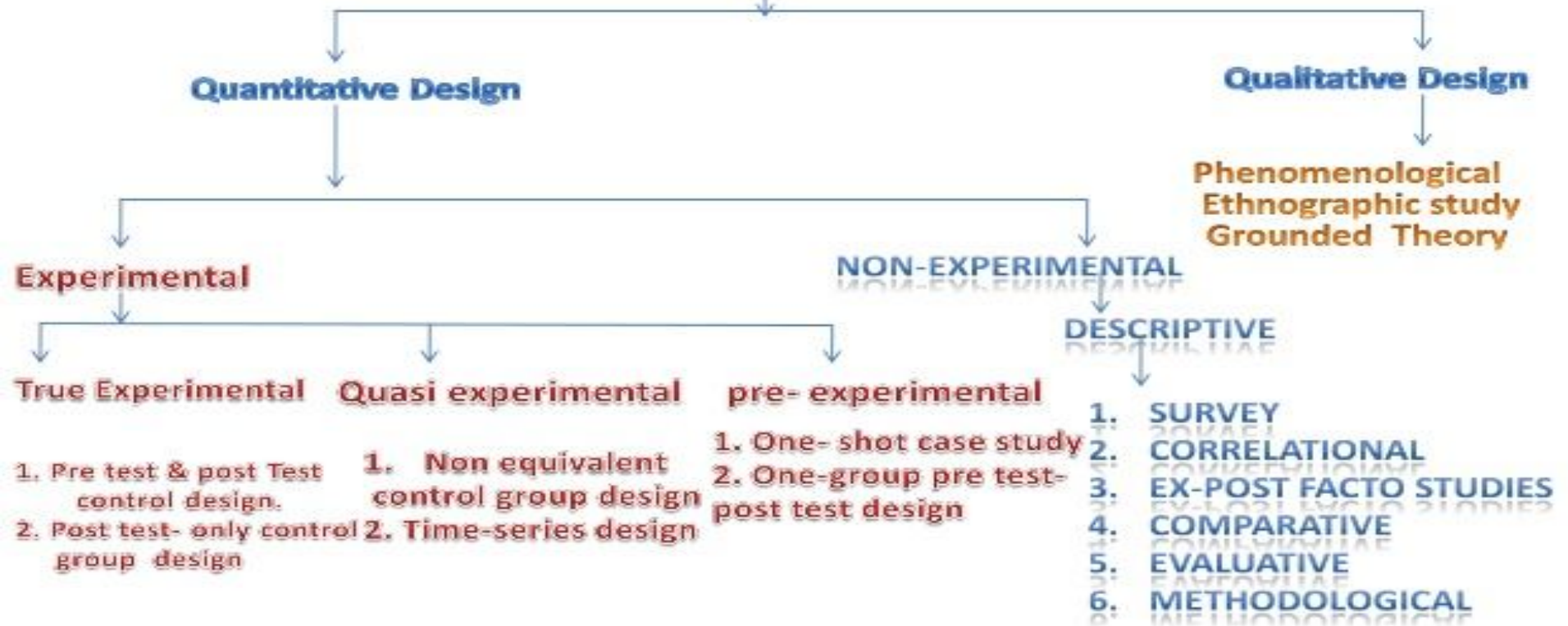
Table 2: Qualitative, quantitative and mixed methods procedures - Comparative chart

PROCEDURES

	QUALITATIVE METHOD	QUANTITATIVE METHOD	MIXED METHOD
Data collection instruments	<ul style="list-style-type: none"> • Interview • Observation • Bibliographical and documentary survey 	<ul style="list-style-type: none"> • Questionnaire 	<ul style="list-style-type: none"> • Concurrent: with one single instrument • Sequential: more than one instrument used in distinct moments
Structure of the instrument	<ul style="list-style-type: none"> • Interview schedule with open questions or sequence of topics and subtopics • Observation schedule • Set of concepts and compilation schedule 	<ul style="list-style-type: none"> • Fixed standard questionnaire, with structured questions and alternative answers; may include some open-ended questions (optional) 	<ul style="list-style-type: none"> • Fixed standard questionnaire, integrated to interview schedule; observation schedules; and set of concepts and compilation schedule
Kind of data record	Narrative text, audiovisual media, summary of bibliographical/documentary research	<ul style="list-style-type: none"> • Dichotomic, scales and multiple choice; literal transcriptions of answers to open-ended questions. 	<ul style="list-style-type: none"> • Integration of techniques: alternative pre-defined answers, narrative text, sound records, photographs, film shooting, and documents summary
Mode of data processing	<ul style="list-style-type: none"> • Data files (interviews, documents etc) • Data organized in categories • Files of bibliographical/documentary summaries 	<ul style="list-style-type: none"> • Statistical database • Files of bibliographical/documentary review notes 	<ul style="list-style-type: none"> • Statistical database • Files of interviews, testimonies, files of documents • Data organized in categories • Files of bibliographical/documentary summaries
Data analysis and interpretation (incorporating theoretical references and literature and documentary review)	<ul style="list-style-type: none"> • Explanation of the narrative structure of texts • Contextualization and interpretation of the meaning of images and sounds • Content analysis of documents and testimonies 	<ul style="list-style-type: none"> • Behavior of variables, indicators and indices • Descriptive or inferential statistics • Univariate, bivariate or multivariate analysis • Elaboration of statistical tables, charts and graphs • Statistical tests 	<p>Integrated analysis of qual/quant data</p> <ul style="list-style-type: none"> • Findings presented as tables, charts and graphs, triangulated with excerpts of testimonies, narratives and reports • Triangulation of text and audiovisual documents

Source: Elaborated by the author

CLASSIFICATION OF RESEARCH DESIGN (POLIT & HUNGLER, 1999)



Quantitative & Qualitative Research

Differences between Quantitative and Qualitative research strategies

Research Aspect	Quantitative	Qualitative
Common Purpose	Test Hypotheses or Specific Research Questions	Discover Ideas, used in Exploratory Research with General Research Objects
Approach	Measure and Test	Observe and Interpret
Data Collection Approach	Structured Response Categories Provided	Unstructure, Free-Form
Research Independence	Researcher Uninvolved Observer. Results Are Objective.	Researcher Is Intimately Involved. Results Are Subjective.
Samples	Large Samples to Produce Generalizable Results	Small Samples – Often in Natural Settings
Most Often Used	Descriptive and Causal Research Designs	Exploratory Research Designs

(Zikmund, 2010)

QUALITATIVE METHODS

- The key task of qualitative research is **meaning making**, a process that does not usually require statistics or large-scale data. Instead, the key focus in qualitative research tends to be on smaller units of people and society, with the method and analyses drawing out the meanings, perceptions, and understandings that individuals and groups attach to behaviours, experiences, and social phenomena.
- Qualitative research is adaptable to a broad range of methods and data sources.
- It is a **subjective approach** whereby the researcher aims to understand and interpret experiences by viewing the world through the eyes of the individuals being studied.
- Methods include the various forms of **observation, focus groups, and unstructured interviews.**

Thanks