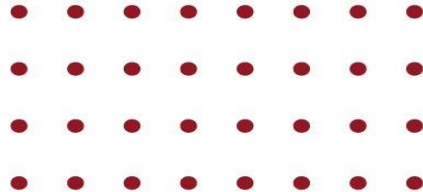
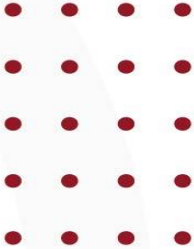


Research Methodology for PhDs



Session 2 Topics

- - positivism and phenomenological research
- - understanding of positivist and phenomenological paradigms, characteristics, and methods
- -Background to the anthropological and Social science Research
- -the concept of the construct and theoretical research



Positivism

1.Philosophy

- a philosophical system recognizing only that which can be scientifically verified or which is capable of logical or mathematical proof, and therefore rejecting metaphysics and theism.

© Oxford language

2.the Theory

- that laws and their operation derive validity from the fact of having been enacted by authority or of deriving logically from existing decisions, rather than from any moral considerations (e.g. that a rule is unjust).



A key principle of positivism

is that knowledge is based on observable phenomena (this is its epistemology).

The term 'positivism' was popularised by Auguste Comte, a young French scholar based in Paris in the 1820s.

©<https://ecampusontario.pressbooks.pub/showingtheory/chapter/positivism>

What a Positivism IS?

Positivism is a philosophical school that holds that all genuine knowledge is either true by definition or positive—meaning a posteriori facts derived by reason and logic from sensory experience.

- Other ways of knowing, such as intuition, introspection, or religious faith, are rejected or considered meaningless.

Positivism

approach to the study of society that relies specifically on scientific evidence, such as experiments and statistics, to reveal a true nature of how society operates



Example of Educational Research

education researchers often use quantitative methodologies to study generalizable correlational trends or causal mechanisms.

They typically rely on traditional statistics that use the means of groups (e.g., engineers versus non-engineers or women versus men) to determine statistically significant differences between groups or average effects of a variable on an outcome (i.e., variable-centered approaches).

Research findings typically report means, line or bar graphs, p-levels, or Bayes factors.

These methodologies often result in essentializing results of analyses to all members of a group as truth (a [post]positivist approach) and perpetuate a problematic dichotomy of identity.



Positivism vs Quantitative methodologies

Stemming out of (post)positivism, most quantitative methodologies emphasize

- objectivity,
- replicability,
- causality.

The Main Principles of Positivism:

The unity of the scientific method – i.e., the logic of inquiry is the same across all sciences (social and natural).

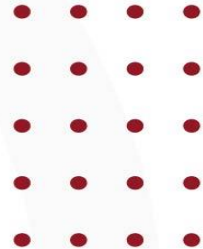
The aim of science is to explain and predict.

Scientific knowledge is testable. Research can be proved only by empirical means, not arguments alone. Research should be mostly deductive, i.e. deductive logic is used to develop statements that can be tested (theory leads to hypothesis which in turn leads to discovery and/or study of evidence). Research should be observable with the human senses. Arguments are not enough, sheer belief is out of the question.

Science does not equal common sense. Researchers must be careful not to let common sense bias their research.

Science should be as value-neutral as possible. The ultimate goal of science is to produce knowledge, regardless of any politics, morals, or values held by those involved in the research. Science should be judged by logic, and ideally produce universal conditionals.

Experiments must be able to verify a statement anytime and anywhere



An Example of Positivism

mathematical or logical positivism.

- This states that mathematics has laws that can be proven through empirical processes, and logic also has facts and laws.

Give your examples in VLE!

Four Stages of Positivism:



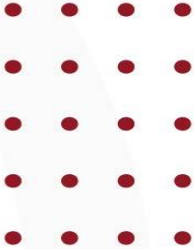
Positivism vs Post-Positivism

POSITIVISM:

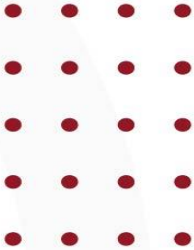
- Deductive
- Quantitative
- Scientific
- Objectivity
- Certainly
- Absolute reality
- Probability sampling
- Structured and controlled
- Deterministic

POST-POSITIVISM:

- Inductive
- Qualitative
- Probability
- Subjectivity
- Humanistic
- Non deterministic
- Critical reality
- Non probability sampling
- Unstructured and uncontrollable



Can you please type in VLE, what do YOU consider
As a LONG DISTANCE WALK



What is Phenomenology

Phenomenology is the philosophical study that attempts to understand the subjective, lived experiences and perspectives of people.

The Stanford Encyclopedia of Philosophy defines it as the “study of structures of consciousness as experienced from the first-person point of view.”

It studies the way we experience things. In fact, it is based on the principle that a single experience can be interpreted in multiple ways and that reality consists of each person’s interpretation of the said experience.

Phenomenology provides information about unique individual experiences, ultimately offering a detailed and complete description of human experiences and meanings.

©<https://pediaa.com/what-is-the-difference-between-positivism-and-phenomenology/>

Key Approaches in Phenomenology

Phenomenology is the philosophical study that attempts to understand the subjective, lived experiences and perspectives of people.

the world is perceived to be socially constructed and subjective.

the researcher focuses on meanings and explores the totality of each individual case.

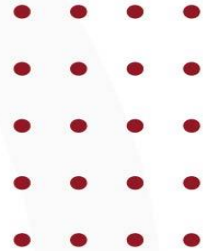
phenomenological research deals with qualitative methods involving subjective perspectives of people.

in phenomenology, the researcher focuses on meanings and explores the totality of each individual case.

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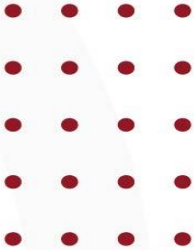
Positivism vs Phenomenology

POSITIVISM	PHENOMENOLOGY
Positivism is the philosophical theory that all knowledge must be verified through scientific methods such as experiments, observations, and logical/mathematical proof	Phenomenology is the philosophical study that attempts to understand the subjective, lived experiences and perspectives of people
The world is perceived as external and objective	The world is perceived to be socially constructed and subjective
Researcher focuses on facts and formulates hypotheses and tests them	Researcher focuses on meanings and explores the totality of each individual case
Deals with scientific and quantitative methods	Deals with qualitative methods involving subjective perspectives of people



Session 2-2 Topics

- Background to the anthropological and Social science Research
- the concept of the construct and theoretical research



Historical View

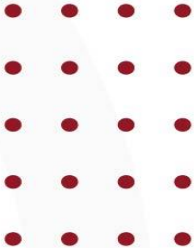
Max Weber was the starting-point for an alternative tradition of social thinking about science.

Weber linked the growth of science with the increasingly pervasive 'rationalization' and 'disenchantment' of life under modern civilization

Weber merely reflected the view that scientists themselves have tended to project: disinterested pursuit of the truth through obedience to rational rules for collecting and analysing evidence and so on.

As in the Marxist approaches to the sociology of knowledge, and the empiricist philosophy of science, science was held to be objective to the extent that it held external social interests and influences at bay.

Only distorted beliefs and falsehoods stood in need of explanation in terms of social (or psychological) factors.



The Anthropology of Science

The ways of worldmaking in which science takes shape in various cultures, especially the relation between the formation of science and a way of conceiving the world, is the stuff of the anthropology of science.

How Do Scientists Understand. Truth & Reality

One way of understanding the concepts of truth, reality, and meaning is to situate them outside of conscious processing.

Researchers operating from this understanding of truth, reality, and meaning aim to capture truth that can exist as truth, regardless of who views it, who processes it, and who derives meaning from it.

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How Do Scientists Understand. Truth & Reality

Another way of understanding the concepts of truth, reality, and meaning is to situate these ideas within the perceptions of the observer and argue that these ideas only take shape within the human consciousness.

In this way of thinking about truth and reality, meaning is constructed based on people's own understanding of their worlds, experiences, interaction with events, and circumstances in their lives. These kinds of truths, realities, and meanings are relative, situated, and context-driven.

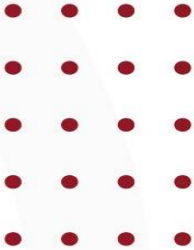
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Example. Rojer Penrose Physics and Philosopher



The Penrose Interpretation predicts the relationship between quantum mechanics and general relativity, and proposes that a quantum state remains in superposition until the difference of space-time curvature attains a significant level



Social Science Research

Social science research is a broad field of study that investigates human behavior.

Social science includes the fields of –

- psychology,
- sociology,
- anthropology,
- and many other areas of research

Important Notes about Social Sciences

Why is social science important?

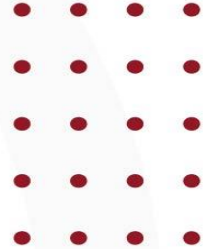
- Social science is important because its purpose is to improve individual lives by improving society.
- Social science research benefits lives individually and globally.

What are the social sciences?

- The social sciences are the study of people and society.
- The five major branches of social science are - Anthropology, Sociology, Psychology, Political Science, and Economics.
- The major branches each have subfields.

What exactly is social science?

- Social science is a broad term for the many fields of the study of people and society.
- The five main branches of social science are Anthropology, Sociology, Psychology, Political Science, and Economics.



©[https://study.com/learn/lesson/what-is-social-science.html#:~:text=The%20social%20sciences%20are%20the,subfield%20of%20Anthropology%20is%](https://study.com/learn/lesson/what-is-social-science.html#:~:text=The%20social%20sciences%20are%20the,subfield%20of%20Anthropology%20is%20)

The aim of social research

The aim of social research, like research in natural sciences, is to discover new facts or verify and test old social facts. It tries to understand human behaviour and its interaction with the environment and social institutions.

The Issues of Social Science Research

informed consent,

deception,

privacy (including confidentiality and anonymity),

physical or mental distress,

problems in sponsored research,

scientific misconduct or fraud,

scientific advocacy.



The Concept of Social Science Research

Theory building and theory testing

The key steps involve collecting data through methods are

- interviews,
- coding the data to identify concepts and categories,
- developing a theory grounded in the data to explain a process.

Limitations in Social Science Research

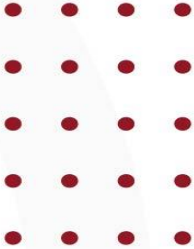
replicability,

generalizability,

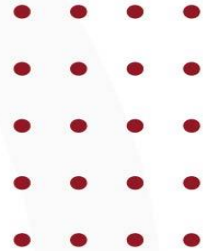
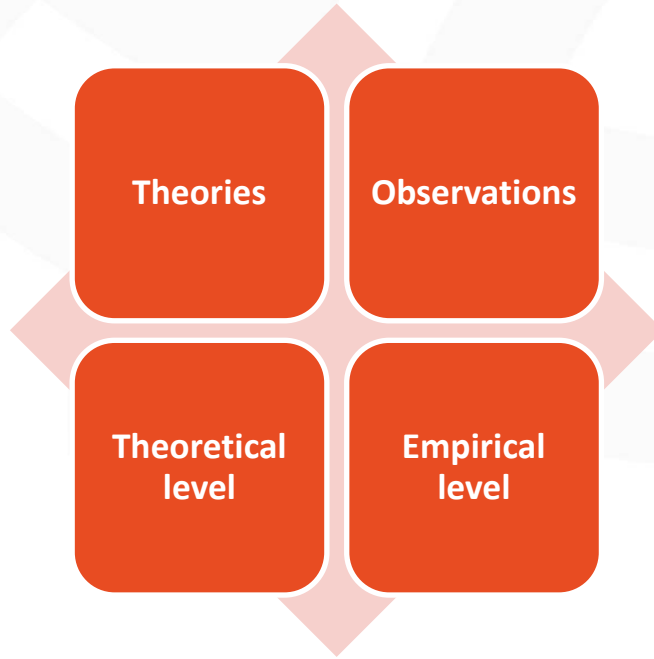
inferential strength,

the difficulty in making empirically and logically justified claims

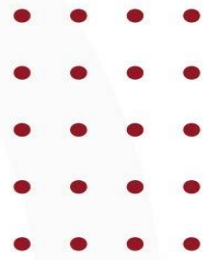
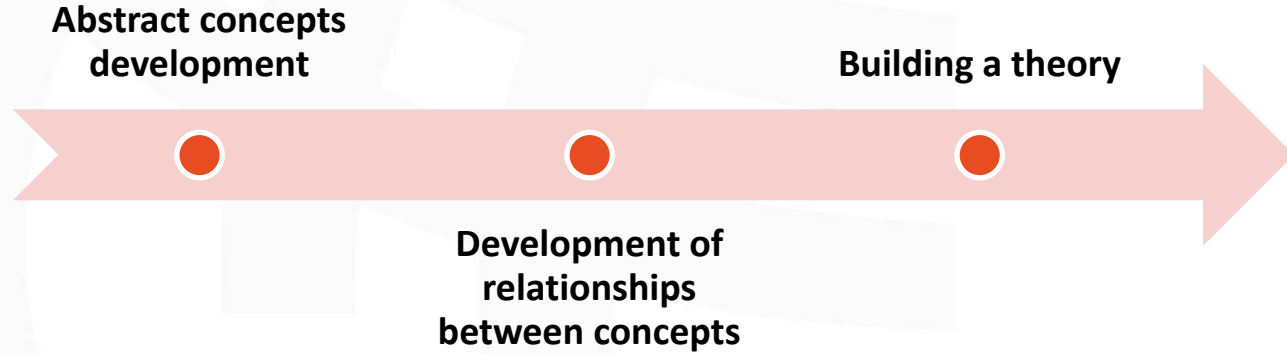
the most challenging task is to establish causality, i.e., that one thing is the direct cause of another. This is due to the complexity of human behaviors and the numerous potential influencing variables



The “Pillars” of Social Research



The Theoretical Level



©<https://www.slideshare.net/slideshow/understanding-the-concept-of-social-science-research/112541280>

The Empirical Level

Testing the concepts and relationships

Reflect the observation of reality

Fits the observed reality in a better way



Approaches and Methods in Social Science Research

- **Qualitative and Quantitative in research social science.**
- **Research process- Identification of research problems formulation of objectives,, research design and conceptual, identification of variables, formation of hypothesis/research questions, sampling design, tools and methods of data collection , data collection (individual based, group based observation based, document based) data processing data analysis report writing and presentation.**
- **Use of simple statistical method in social research: measures of central tendency, measures of dispersion, correlation, chi-square test**



Forms of Research

- Inductive Research

"Infer theoretical concepts and patterns from observed data"

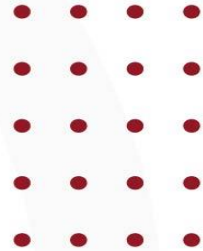
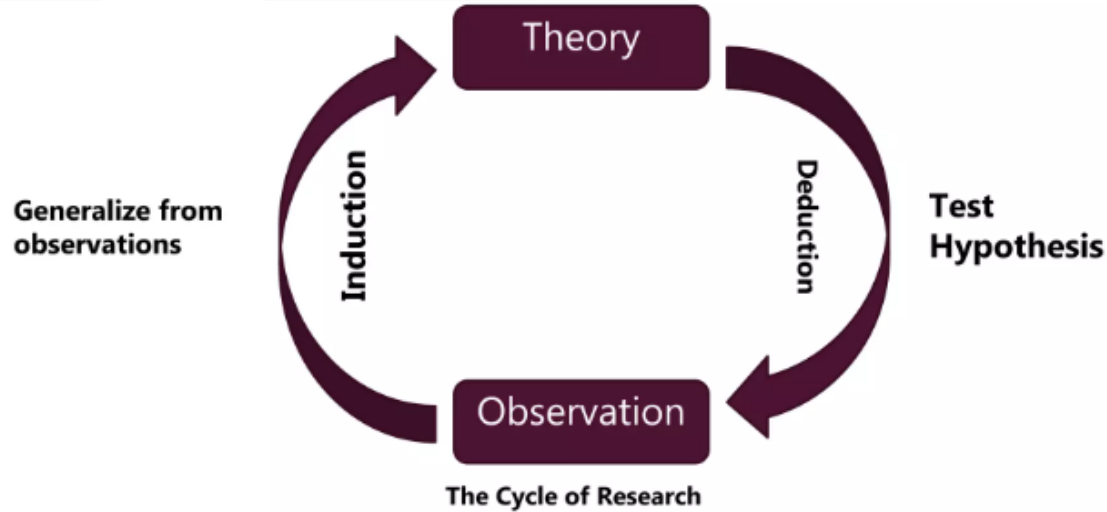
- Deductive Research

Test concepts and patterns known from theory using new empirical data

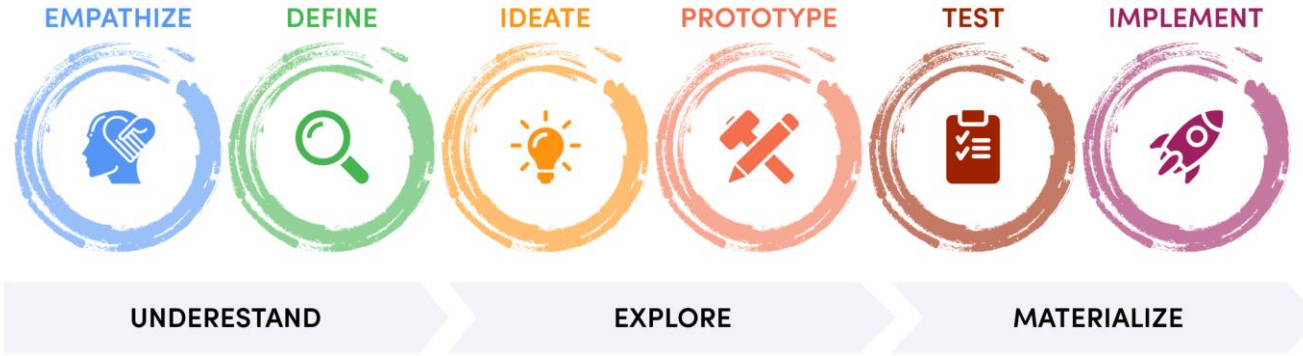
- Inductive is Theory Building, Deductive is Theory Testing which improves, refines and extends it.



Forms of Research



Example: Design Thinking





Unlike natural sciences, social science theories cannot be perfect. They are speculative, often ad hoc





Thank You!
Read the Recommended Readings
You're welcome with your discussions and
questions in VLE!

Please note, that since the recordings are
done, some Readings may become
unavailable. Inform us immediately in
VLE, so we can offer substitutions