

paradigm: Model of something, or a very clear typical example of something.

- **ORIGIN:** late 15th century.: via late Latin from Greek Paradeigma ,from Paradeiknunai show side by side , ' from para --'beside' + deiknunai 'to show .' "Paradigms are general framework or view-points : literally points from which to view, provide ways of looking at life and are grounded in sets of assumptions about the nature of reality"

- The word was first used by the American philosopher Thomas Kuhn (1962) to indicate to philosophical way of thinking.
- origin in Greek where it means pattern.
- A research paradigm is "the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed" .
- includes the abstract beliefs that shape how a researcher views the world, and how he interprets and performs within that world.
- not a methodology, but a philosophy that directs the process of research in a specific manner.

Paradigm is:

- *The way of comprehension of the world reality and investigating it .
- *The framework that directs research and practice in a field.
- *The lens by which the researcher can view and comprehend the reality.
- * paradigm + research Qs determine data collection and analysis methods most suitable for research.
- * should guide the selection of the research methodology.
- * a coherence throughout the research between it and method is important for the quality of the process

KEY RESEARCH PARADIGMS

1. Positivism.

- sees social science as an organized method for combining deductive logic with precise empirical observations of individual behavior in order to discover and confirm a set of causal laws that can be used to predict general patterns of human activity.

□postulates that reality exists independently of humans (social construction) and controlled by unchangeable laws
□ suggests that it is possible to formulate these laws and describe them using genuine statements .

□It is frequently utilized to test theories or hypothesis .

□The social world is treated like the natural world (cause effect relationship between variables). Therefore, it is possible to make probabilistic predictions and generalizations.

□reality is context free (researchers will get similar conclusions regarding the phenomenon in different times and places, no complete understanding of phenomenon)= insensitivity to context, complexity and change.

- epistemological position is objectivism (Researchers are objective observers to examine phenomena that exist independently of them and they do not influence the observed phenomenon).
- Observation and verification are essential features of positivism.
- knowledge is objective and quantifiable.
- The world is real and not socially constructed.
- Positivism is the primary base for quantitative research, Synonymous with Scientific method, Empiricism, and Objectivism.
- Scientific research in a positivist paradigm focuses on prediction.
- The hypothetico-deductive model of science is used to facilitate research process, taking a theory verification approach.
- Research operates in an objective world, where researcher does not interact with study participants to minimize bias.
- Theories of nature depend on empirical data, with larger samples used to make generalizations.

CRITICISM OF POSITIVISM PARADIGM

- separation between researcher and researched phenomenon, and of considering them as independent existence has been claimed as problematic.
- It has been argued that it is impossible for the researcher to investigate particular events without permitting for his interests and values interfering.

2. POST POSITIVISM (CRITICAL REALISM)

- appeared as a result to criticism directed toward positivism.

Assumptions:

- Reality exists independent of the observer.

- Potential of researcher's beliefs and values affecting observed phenomenon.

- rejects the neutrality and human detachment that are characteristic of logical positivism.

- a revolt against limitations of positivism which solely associates itself with empiricism and rejects the existence of individual/subjective perspective of facts.

- Post positivistic paradigm promotes the triangulation of qualitative and quantitative methods that explores the diversity of facts researchable through various kinds of investigations but respecting and valuing all findings as the essential components for development of knowledge

- One of the most prominent characteristics of post positivist research is using triangulation within and between methods .

- It has been well established that mixed method is the preferred technique of post positivists in order to explore multiple viewpoints to gain deeper consideration of the research problem.

- Researchers in the postpositivist tradition are critical realists in that they support the notion that objects exist, but this recognition is accompanied by an understanding that some cannot be observed by senses or experimentally tested. Knowledge is, then, always open to further investigation and truth of any matter is always forthcoming.

3. Constructivism (interpretivism).

• Aims to :

- Understand social phenomenon in its context (contextualized investigation).

- Understand how people make sense of their world and, thereby, construct meaning.

- Depends on qualitative data collection over an extended period of time (e.g. ethnography and case studies).

- Researchers interact with subjects of study to obtain data (research is based and depends on researcher's interests).

- Data analysis approach is inductive, i.e. researcher attempts to discover patterns in data, categories them under broad themes to understand a phenomenon and generate theory.

- main distinction between constructivism and positivism relates to the fact that positivism argues that knowledge is generated in a scientific method, constructivism maintains that knowledge is constructed by scientists

- Interpretive research does not predefine dependent and independent variables, but focuses on the full complexity of human sense making as the situation emerges

- constructivism philosophical paradigm is associated with the qualitative research approach. This is the case because:

1. the paradigm seeks to understand a phenomenon under study from the experiences or angles of the participants

2. researcher constructs meanings from phenomena under study through his own experiences and that of the participants in the study.

3. In his quest to find the true state of the situation under study, he sometimes engages in the activities as they are carried out by residents in the natural settings so that he experiences it himself or see others experiencing it.

4. Moreover, like the qualitative researcher, constructivists assert that reality is subjective because it is from the individual perspectives of participants engaged in the study and are thus multiple or varied

- In general, qualitative research is based on constructivist ontology:

- No objective reality.

- There are multiple realities (i.e. truths, worldviews) constructed by human beings who experience a phenomenon of interest.

- Researchers spend enough time with the participants in their natural contexts to feel confident that they are capturing the real facts of the phenomenon under study. Spending far too little time in research settings is a serious flaw in constructivist work.

- Research is considered to be of good quality if it has:

- Credibility (internal validity).

- Transferability (external validity).

- Dependability (reliability).

- Confirmability (objectivity).

4. Pragmatism

- Pragmatism is not always referred to as a paradigm or philosophy of science since it is not committed to a single philosophy.
- Pragmatism originates from the Greek word *pragma*, which means action, activity or the work done.
- The philosophy that encourages people to find processes that work in order to achieve the desired ends.
- It is rather concerned with the best practical way to answer a research question. As such the research question is the pivotal point for the selection of method.
- Pragmatism is mostly associated with mixed methods research.
- Pragmatic approach is 'to rely on a version of abductive reasoning that move back and forth between induction and deduction' to connect theory and data.
- It can convert observations into theories and then assess those theories through action.
- This abductive process is often employed by researchers who combine qualitative and quantitative methods in a sequential fashion where the inductive goals of a qualitative approach are based on the deductive results from a quantitative approach, and vice versa.

Advantages;

1. Helps to provide a more complex understanding of the problem that would otherwise not have been assessable by using only a single approach (qualitative or quantitative ones)
2. Pragmatism brings quantitative and qualitative approaches together to build on their strengths and weaknesses. The strength of qualitative is often the weakness of the quantitative approach and vice versa. Qualitative research, due to the limitations related to a small number of stakeholders that could be interviewed and topics that could be discussed during the interviews, cannot claim for bringing insights on the breadth of the issues. In the contrary, quantitative studies often fail to address the depth of reactions and contextual factors.

Challenges: Time and commitment for the research.

METHODOLOGY AND METHODS

Methodology can be viewed as a map, and method can be viewed as a sequence of steps to move between two points on this map.

COMPONENTS OF RESEARCH PARADIGM

1. Ontology: (onto= being or existence+ logia= science)

- A view of nature of reality if it is external or internal to the knower
- identifies the nature and shape of social reality and what can be recognized about this reality.

The ontological questions are:

- What is the form and nature of reality?
- Is this reality external to social actors?
- What is a thing?
- What are the fundamental parts of the world?
- How they are related to each other?

- leads investigator to ask what type of reality existent: a single, reality or socially constructed several (multiple) realities.

There are two broad contrasting positions:

1. **Objectivism:** holds that there is an independent reality = External reality
2. **Constructionism:** assumes that reality is the product of social processes= Constructed reality.

3- METHODOLOGY

- A disciplined approach to generating knowledge.
- The pathway or approach of action that justifies the selection and employment of certain methods.
- O'Sullivan et al. explicitly defined research methodology as the steps researchers use to collect and analyze data.

• steps involve:

- (a) deciding when and how often to collect data;
- (b) developing /selecting measures for each variable;
- (c) identifying a sample or test population;
- (d) choosing a strategy for contacting subjects;
- (e) planning the data analysis; and
- (f) presenting the findings

- guides researcher in deciding what type of data is required for a study and which data collection tools will be most appropriate for purpose of the study.
- methodological Q leads to inquire how world should be studied.

4- METHODS

- The means of collecting and analyzing data.
- Selection of methods depend on the design of the study and the research questions.

2. Epistemology= epistêmê = knowledge or understanding

- The study of knowledge nature, possible scope, necessary limits.
- the philosophy of knowledge or how we come to know.
- closely linked to ontology and methodology .
- in research used to describe how we come to know something.
- concerned with propositional knowledge Knowing that some proposition is true.
- typically do not focus on procedural or acquaintance knowledge, however, instead preferring to focus on propositional knowledge.
- A proposition can be expressed by a declarative sentence, and which purports to describe a fact or a state of affairs, such as "Dogs are mammals," " $2+2=7$,"
- Statements of propositional knowledge (or the lack thereof) are properly expressed using " clauses Ex : "He knows that Houston is in Texas," or "She does not know that the square root of 81 is 9."

Types of Knowledge

1. Practical: skills based knowledge.

e.g. being able to drive or use a computer.

2. by acquaintance: involve familiarity not facts.

e.g. I know my mother, I know how an apple looks.

3. Factual: based on fact

e.g. I know that the sun rises every morning.

Tripartite Analysis of Knowledge: Knowledge= Justified True Belief

Epistemological Questions:

□ What does knowledge mean?

□ How is knowledge

□ How do we know what we know?

□ How can the researcher come to know reality?

□ What is the basis for true knowledge?

□ Are there limitations to what we know?

- Singular truth (reality) is assumed, then the researcher must be one of objective detachment to be able to reveal , how things really are?

- Multiple realities are assumed, then the researcher would reject the idea that people should be investigated like objects of natural sciences. Rather, they need subjective understanding of the phenomenon in its contexts.

Three Conditions of Knowledge:

1- Truth Condition

• Most epistemologists have found it overwhelmingly reasonable that what is false cannot be known. **Ex**, Hillary Clinton did not win the 2016 US Presidential election. Consequently, nobody knows that Hillary Clinton won the election.

2- Belief condition

- you can only know what you believe, SO failing to believe something precludes knowing it.
- One might "believe" something by virtue of being pretty confident that it's probably true.

Ex, Someone who considered Clinton the favorite to win election, might be said to have "believed" that Clinton would win.

3- Justification condition

- In JTB account of knowledge, knowledge is a true belief which is justified.
- Propositional knowledge requires justification.
- It requires that a knower has adequate indication that a known proposition is true. That adequate indication constructs a sort evidence= epistemic justification.
- Epistemic justification is needed to exclude co incidentally true belief such as lucky guess mark, and to provide for the adequate relation between the belief and truth condition for propositional knowledge.
- A related view of the type of knowledge that can be generated and standards for justifying it.
- Epistemic understanding determines type of knowledge available to, or required by the researcher to place them within a given topic area.