

RESEARCH PARADIGMS IN EDUCATION

Introduction

- Selects of the area
- Identifies and defines
- Reviews the literature
- States hypotheses
- Defines the objectives
- Finalizes the research plan

Research Method

Research methods are of utmost importance in a research process.

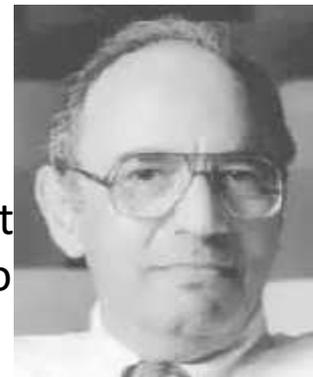
Paradigm

A paradigm provides a conceptual framework for seeing and making sense of the social world.

Kuhn, 1970(Introduction of the term)

"universally recognized scientific achievements that for a time provide model problems and solutions to a community of practitioners"

"something like a paradigm is a prerequisite to perception itself".



Burrell and Morgan (1979)

"To be located in a particular paradigm is to view the world in a particular way

Patton (1990)

He terms it as "world view"

The Two Paradigms

- Quantitative Paradigm
- Qualitative Paradigm

Quantitative Paradigm

- Quantitative research is termed the traditional, positivists, the experimental or empirical tradition by some of the authorities like Comte, Mill, Durkheim, Newton, etc
- Quantitative approach uses 'measurement' as the most precise and universally accepted method for assigning quantitative values
- Measurement is defined as the assignment of numbers to objects and events according to logically accepted rules

The measurement uses certain properties of numbers while observed phenomena. These properties are described as under:

The property of identity

The property of order

The property of additivity



Qualitative Research

Qualitative approach is used in phenomenological inquiry for the verification of proposition, which takes into consideration the totality of phenomenon and does not attempt at analyzing it into quantifiable components.

Qualitative research in contrast to quantitative approach is by some regarded as less 'scientific' and 'softer.'

Detailed perspectives of the participants in the 'naturalistic' settings.

Characteristics

	Quantitative	Qualitative
Approach	Scientific approach. Logical positivism uses quantitative approach in the verification of theoretical propositions	Naturalistic approach. Phenomenological inquiry uses qualitative approach to the verification of proposition.
	Deductive(Top-down approach) Researcher formulates and uses hypothesis and theory with data.	Inductive (bottom-up approach) The researcher generates hypothesis and ground the0ry from the data collected during field work.

	Quantitative	Qualitative
Understanding	Based on logical positive paradigm it test specific hypothetical generalization with narrow angle lens	Based on phenomenological paradigm it understands the phenomenon in context specific settings in a wide angle and deep angle lens
Aim	Aims at descriptive explanation and prediction of social phenomenon	Aims at description, exploration and discovery using in depth knowledge
Method	Uses scientific method with “hard science” tapping.	No sing method; uses a wide range of discrete strategies and methods
Subject	Behavior of the subject under study is assumed to be regular and predictable, studied under controlled condition	Behavior of the subject is assumed to be fluid, dynamic, situational, social, contextual, and personal; studied under natural condition

	Quantitative	Qualitative
Observation	Nature of observation is objective.	Nature of observation is subjective.
Test items	Closed-ended structured questionnaires, tests, attitude scales, rating scales are used	Open-ended questionnaires are used as test items to obtain in-depth knowledge.
Sampling	Probability sampling which depends on the selection of random and representative sampling	Purposive sampling is a dominant strategy. The researcher uses small samples
Distance	There is much social distance between researcher and the subject	The researcher is the primary data collection instrument.“ He has a direct contact with and gets close to people , situation and phenomenon under study.

	Quantitative	Qualitative
Findings	It aims at analysis of representative and validated quantitative data through sophisticated statistical and software package	The analysis of qualitative data require organizing raw data into logical meaningful categories and examining them in holistic fashion for interpretation of data
	There is some manipulation of the variable under controlled condition	Study of real world situation as they unfold naturally without any manipulation
Time	Takes little time to conduct	Takes a long deal of time to conduct

Major Types of Researches

Quantitative Paradigm

1. Descriptive survey research
2. Correlation research
3. Causal-comparative research
4. Experimental research.

Qualitative Paradigm

1. Phenomenology.
2. Ethnography.
3. Case studies.
4. Grounded theory

Merits and Demerits of Quantitative Paradigm

Merits

1. The research has statistical reliability
2. Quantitative research involves quantifications based on numbers.
3. The results of the quantitative research can be generalized.
4. The use of multivariate methods and analysis is helpful in measuring and controlling the variable or variables which intervene between independent and dependent variables.

Demerits

1. Quantitative research uses quantitative data.
2. It is not always possible to formulate specific hypothetical generalizations.
3. Involve researcher 'bias.'
4. The primary disadvantage of quantitative research is that issues are measured if they are known prior to beginning of the study, especially in survey research.
5. The selection and use of large samples for drawing reliable statistics involves a lot of efforts in terms of money and man-power.

Merits and Demerits of Qualitative Paradigm

Merits

1. Qualitative research is not a unitary approach. It utilizes a variety of alternative approaches to the traditional, positivistic research.
2. It utilizes qualitative data which are detailed and descriptive.
3. Qualitative research is most suitable in the study of human behavior which is fluid, dynamic, situational, social, contextual, and personal
4. It does not start with advanced formulation of specific deductive hypothesis .
5. Qualitative research utilizes flexible design and “avoids getting locked into rigid designs.
6. The researcher has direct and close contact with the people, situation, and phenomenon under study.
7. The final report of the qualitative research studies are detailed and interesting narrations about the phenomenon

Demerits

1. Subjective bias is a constant threat to objective data gathering tools and analysis of techniques.
2. The findings lack generalization because of the nature and size of the samples used for data collection.
3. Qualitative research utilizes a variety of methodologies in studying a phenomenon in holistic perspective. In certain cases, it is difficult to focus on complex interdependencies of its parts and understand the meaning of the phenomenon as a whole.
4. It is cost effective and takes a long deal of time.

Criteria for Selection

Criteria	Quantitative Paradigm	Qualitative Paradigm
Researcher's worldview	Researcher's comfort with the ontological, epistemological, axiological, rhetorical, and methodological assumptions of the quantitative paradigm	Researcher's comfort with the ontological, epistemological, axiological, rhetorical, and methodological assumptions of the qualitative paradigm
Thinking and experience of the researcher.	Technical writing skills, computer statistical skills, library skills.	Literary writing skills, computer text analysis skills, and library skills.
Researcher's physiological attributes	Comfort with rules and guidelines for conducting research, low tolerance for ambiguity, time for a study of short duration.	Comfort with lack of rules and procedures for conducting research, high tolerance for ambiguity, time for lengthy study.

Criteria	Quantitative Paradigm	Qualitative Paradigm
Nature of the problem	Previously studied by other researchers so that body of literature exists; known variables; existing theories.	Exploratory research; variables unknown; context important; may lack theory base for study.
Audience for study	Individuals accustomed	Individuals accustomed

?? Q & A ??

Thank You