

# **INTRODUCTION TO RESEARCH**

CENTRE FOR OPEN AND DISTANCE LEARNING

**TEZPUR UNIVERSITY**

# What is RESEARCH?

- It is systematic and critical investigation onto a phenomenon
- It is objective and logical
- It is a purposive investigation aiming at describing, interpreting and explaining a phenomenon
- Based on observable experience or empirical evidence

# Why do RESEARCH?

- Extend KNOWLEDGE
- DISCOVER
- GENERALIZATIONS AND GENERAL LAWS
- VERIFY AND TEST
- New TOOLS, CONCEPTS & THEORIES
- ANALYSE RELATIONSHIP

But Human Beings  
have enough

- KNOWLEDGE
- EXPERIENCE
- SKILLS
- MEDIA provides  
information

# Where is the SCIENCE in SOCIAL RESEARCH?

- Reliance on EVIDENCE
- Use of CONCEPTS
- Commitment to OBJECTIVITY
- ETHICAL NEUTRALITY
- GENERALIZATION
- VERIFIABILITY

Should AVOID:

- PERSONAL FEELINGS
- SELECTIVE OBSERVATIONS
- PREMATURE CLOSURE

# Key concepts in **SOCIAL SCIENCE RESEARCH**....

## **THEORY**

**EXPLAIN WHAT  
IS AND WHY**

**SOCIAL  
REGULARITIES**

**AGGREGATES,  
NOT  
INDIVIDUALS**

### **RELEVANCE IN RESEARCH**

- DELIMITATION OF STUDY
- CONCEPTUAL MODEL
- PREDICTION
- SUMMARISE

**DOES NOT SAY  
GOOD OR BAD**

**NOT BASED ON  
BELIEF OR  
PHILOSOPHY**

**DOES NOT  
ADDRESS UNIQUE  
CASES**

A **variable** refers to a characteristic or attribute of an individual or an organization that can be measured or observed and that varies among the people or organization being studied.

<b>VARIABLES</b>	<b>ATTRIBUTES</b>
Age	Child, Adolescent, Adult, Old...
Class	Lower, Middle, Upper middle...
Caste	General, SC. ST, OBC...
Academic Qualification	10 <sup>th</sup> , 12 <sup>th</sup> , Graduate, PG...
Occupation	Farmer, Teacher, Business...

***Independent variables*** are those that (probably) cause, influence, or affect outcomes. They are also called treatment, manipulated, antecedent, or predictor variables.

***Dependent variables*** are those that depend on the independent variables; they are the outcomes or results of the influence of the independent variables. Other names for dependent variables are criterion, outcome, effect, and response variables.

### **EXAMPLES OF VARIABLES**

The uneducated people are more class conscious than the educated.

Children of English medium schools are smarter than children of vernacular medium.

# **HYPOTHESIS**

A hypothesis is the basic statement that is tested in research. Typically a hypothesis states a relationship between two variables.

## **RESEARCH HYPOTHESIS ( $H_1$ )**

**Students in upper standards study more than students in lower standard.**

## **NULL HYPOTHESIS ( $H_0$ )**

**There is no significance between the study hours of students in upper and lower standards.**

## **Types of Error**

- 1. Type 1 Error: When true hypothesis is rejected**
- 2. Type 2 Error: When false hypothesis is accepted**

# ETHICS in SOCIAL RESEARCH

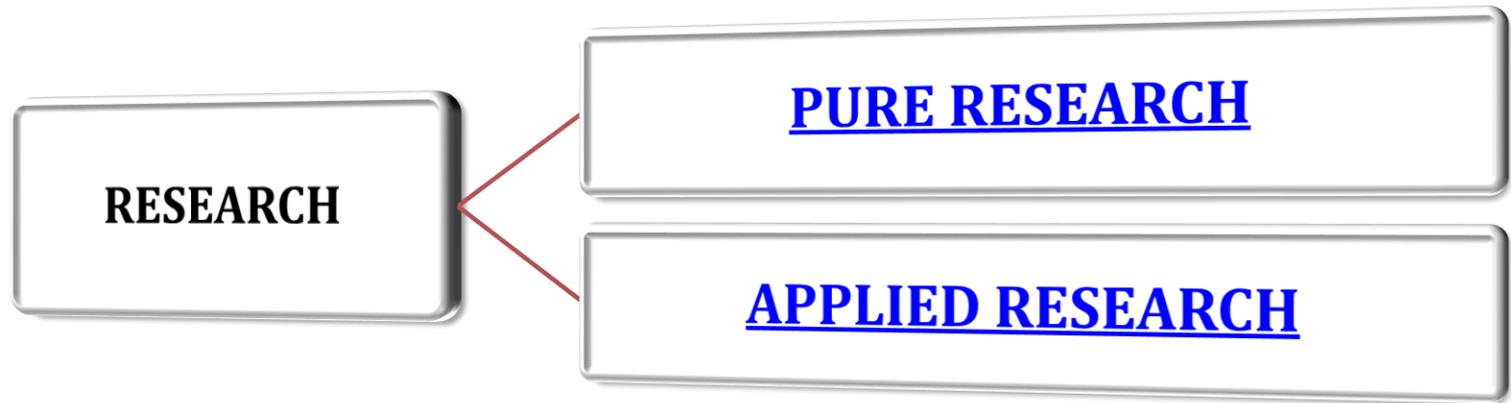
- Voluntary Participation
- Informed Consent
- No Harm to the Respondent
- Confidentiality
- Anonymity

**END OF SESSION I**

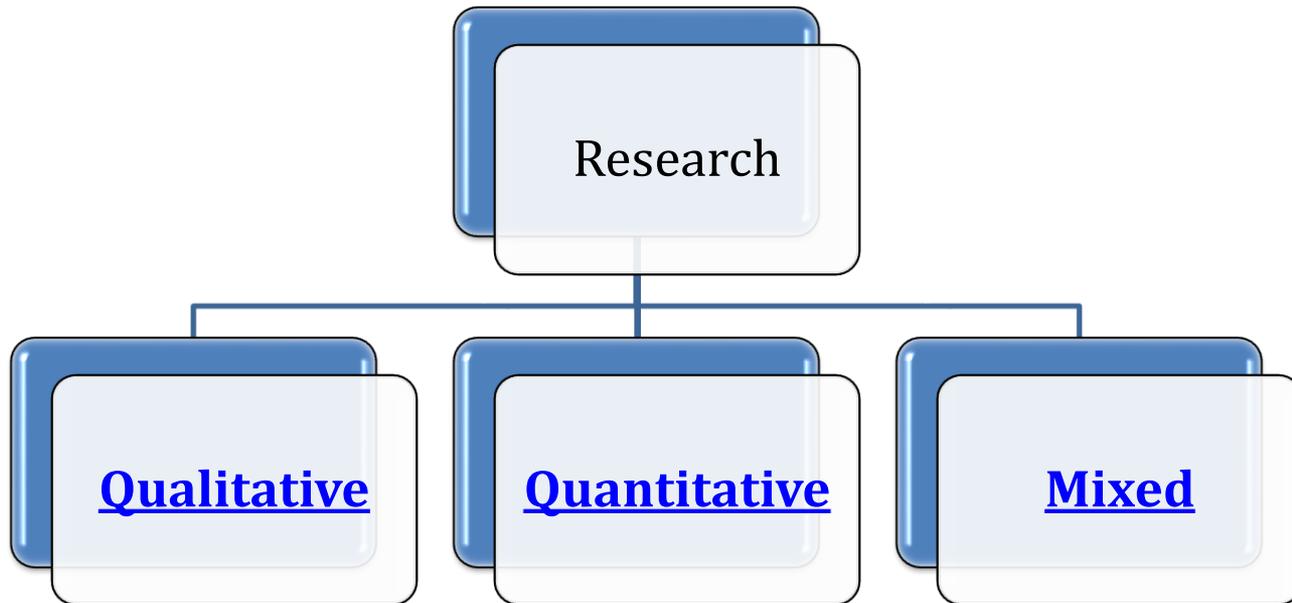
**TYPES OF RESEARCH  
&  
RESEARCH DESIGN**

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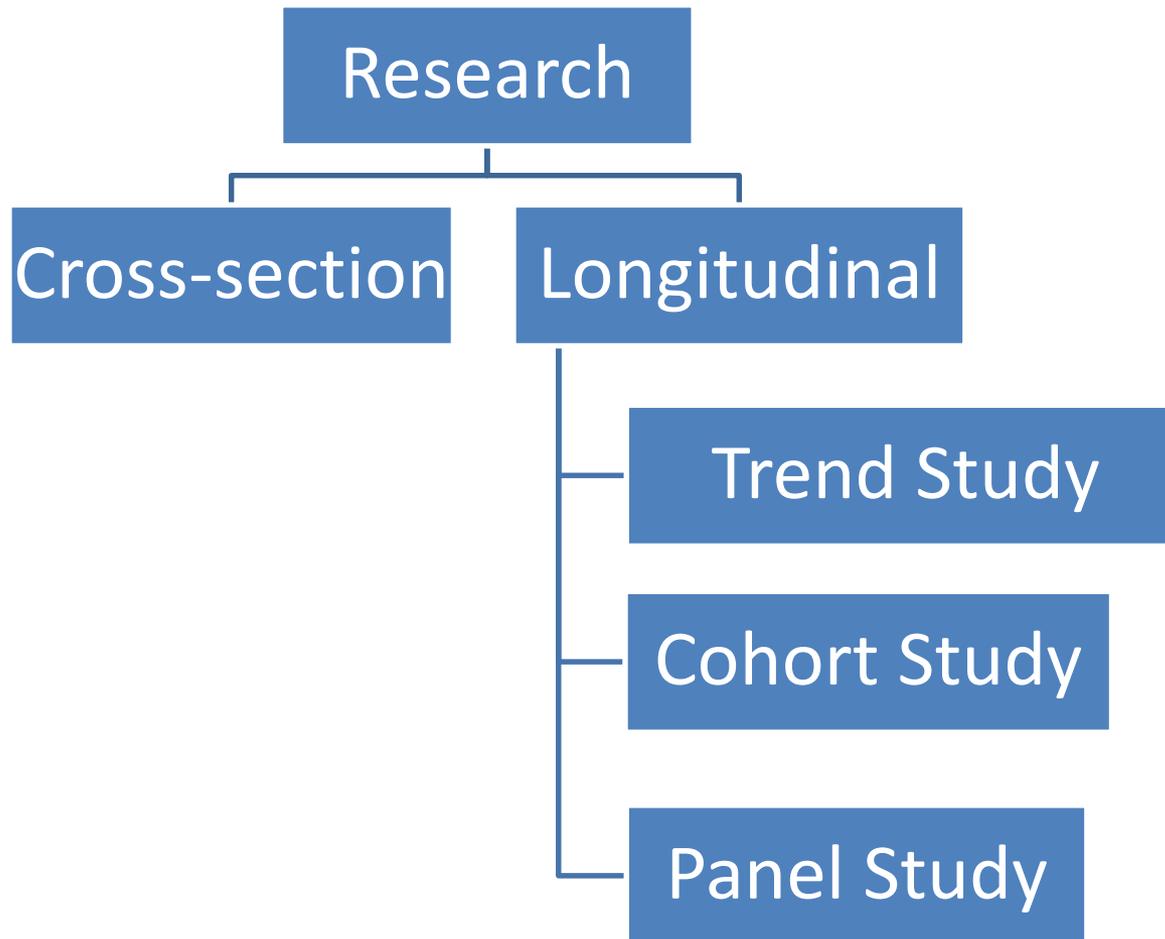
# On the basis of INTENT



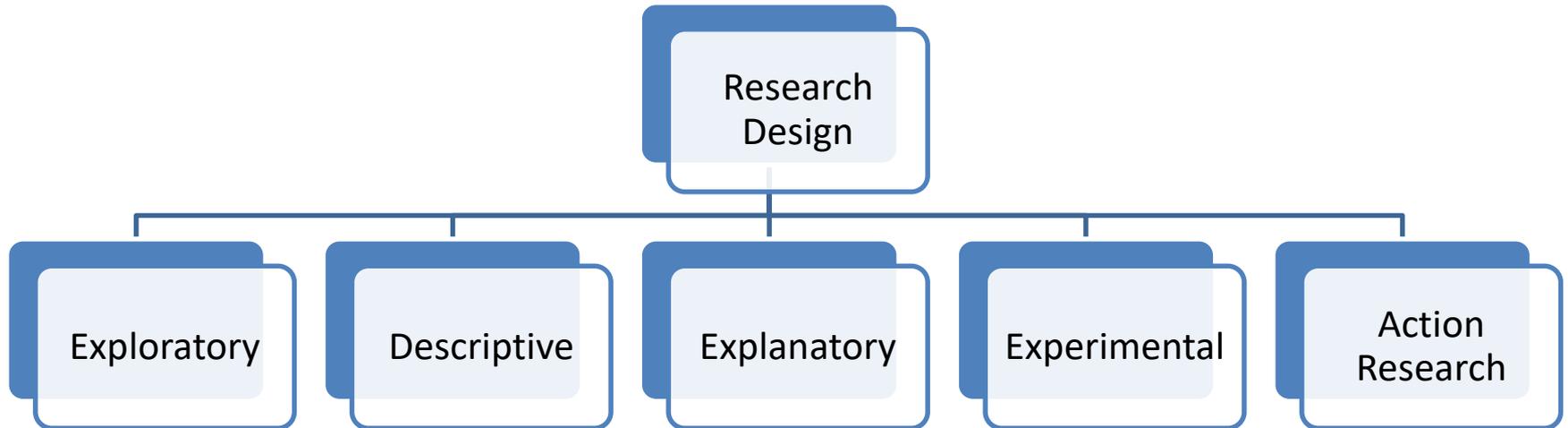
# On the basis of DATA



# On the basis of **TIME**



# Research Design



**END OF SESSION III**

# APPLIED RESEARCH

- It aims at **SOLVING REAL-LIFE PROBLEM**
- Contribute **NEW FACTS**
- Put **THEORY** to the **TEST**
- Aid in **CONCEPTUAL CLARIFICATION**
- **INTEGRATE THEORIES** of different disciplines

# EXPLORATORY RESEARCH

- Preliminary study of an unfamiliar problem
- It is ill-structured and much less focus on pre-determined objectives.
- To generate new ideas

# Mixed Research

The term **mixed methods research** is used as a **simple** shorthand to stand for research that integrates quantitative and qualitative research within a single project.

# PURE RESEARCH

- Also known as **FUNDAMENTAL RESEARCH**
- Undertaken out of **INTELLECTUAL CURIOSITY**
- Does **NOT** aim **SOLVING PROBLEM**
- It aims at **EXTENSION OF KNOWLEDGE**
- Facilitate **PRACTICAL RESEARCH**

# Qualitative Research

- Qualitative research does not involve counting and dealing with numbers but is based more on information expressed in words – descriptions, accounts, opinions, feelings, etc.
- Qualitative researchers are interested in how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences.
- The key concern is understanding the phenomenon of interest from the participants' perspectives, not the researcher's

- Qualitative researchers build toward theory from observations and intuitive understandings gleaned from being in the field.
- The product of a qualitative inquiry is richly descriptive.
- The design of a qualitative study is emergent and flexible.
- Sample selection in qualitative research is usually (but not always) nonrandom, purposeful, and small

# Quantitative Research

- Structured and more rigid
- Concepts are Operationalized
- Respondents are Passive
- Sample is statistically representative
- Explain variation and correlation
- Test theory and hypothesis

# **IMPORTANCE OF REVIEW OF THE LITERATURE**

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# What is **LITERATURE REVIEW**?

- It is focused and directed towards specific purposes
- It is Selective
- It starts with the selection of a problem for research.
- It continues through various stages of the research process

# Types of **LITERATURE REVIEW**

- Context Review
- Historical Review
- Integrative Review
- Methodological Review
- Self-study Review
- Theoretical Review

## **CONTEXT REVIEW:**

*Link a specific study to a larger body of knowledge. Appears at the beginning of a research report and introduces the study by situating it within a broader framework.*

# CHAPTER I

## Introduction

Education is considered as key for the development of any nation. It is a powerful instrument to address the issues like social and economic inequality, discrimination on the basis of gender, caste, creed and sex. Education performs number of functions towards building a potential human capital such as development of natural ability, character building, development of a personality, preparation for adult life, control and sublimation of basic instinct, creation of useful citizen, development of a sense of community, protection and increase of culture and civilization, encouragement of social welfare, national development, use of leisure, increasing consciousness of other cultures, improving emotional unity and developing an international feeling (Sharma, 2007). In other words, education install and nurture basic human values and hugely contributes towards peaceful co-existence in spite of diversity which is breeding ground of healthy economic growth and sound life style. The economic growth and education are hugely correlated as education enhances knowledge and human ability to induce innovation and to perform difficult task which in turn contributes to economy (Ott, 2012). Further, the

## **HISTORICAL REVIEW:**

A review that traces an issue over time. It can be merged with a theoretical or methodological review to show how a concept, theory, or research method developed over time.

## **International Initiative for Universal Elementary Education**

The document that addressed education as right could be traced back in 'Basic Rights of the German People' of 1849 where seven provisions were dedicated to restrict the involvement of the church and made the state responsible for free education to poor (Hodgson, 2012). Later in 1917, after the Bolshevik Revolution the government of USSR started educational centre to educate illiterate people by the literate and by 1936 through the article 121 of the Constitution of USSR education made free, compulsory and secular for individual between the age group of 7 to 15 years (Nawaz & Tanveer, 1975). However, these were the action taken by the countries prior to the initiatives at the international level.

## **INTEGRATIVE REVIEW**

It presents and summarizes the current state of knowledge on a topic, highlighting agreements and disagreements within it.

Apart from government recognition to importance of NGOs in development sector there were other factors that influence the involvement of NGOs in educational care, such as:

Firstly, India is a large country and as the population is huge, it may practically be difficult for the government to take care of all the activities, and the country definitely needs the support of the NGO in India to take care of the rest (Mathew and Verghese, 2011). Further, cultural and regional diversity is another aspect that tiled way for NGOs in India. Because considering the extent of diversity that exists in India it difficult to frame a uniform programme and expecting that it would meet the need of fellow citizens.

Secondly, it is the cost effectiveness which promoted NGOs as a most preferred alternative in the development sector. The NGOs are non-profit making organization and the chances of internal corruption and fraud are less. This aspect helps NGOs to perform activities in much lesser price comparing to that of government initiated activities.

Finally, NGOs across country do not work on set and uniform procedure rather they modify their activities in consonance with the community need, expectation and

## **METHODOLOGICAL REVIEW:**

Author compares and evaluates the relative methodological strength of various studies and shows how different methodologies (e.g., research designs, measures, samples) account for different results.

## **SELF-STUDY REVIEW**

A review in which an author demonstrates his or her familiarity with a subject area. It is often part of an educational program or course requirement.

## **THEORETICAL REVIEW**

Author presents several theories or concepts focused on the same topic and compares them on the basis of assumptions, logical consistency, and scope of explanation.

# **Significance** of LITERATURE REVIEW

- What is already known about this area?
- What concepts and theories are relevant to this area?
- What research methods and research strategies have been employed in studying this area?
- Are there any significant controversies?
- Are there any inconsistencies in findings relating to this area?
- Are there any unanswered research questions in this area?

# HOW TO DO IT?

**STEP I:** Define the purpose and scope of the review

**STEP II:** *Seek out studies relevant to the scope and purpose of the review.*

**STEP III:** *Appraise the studies from Step 2*

**STEP IV:** *Analyze each study and synthesize the results*

**END OF SESSION II**

# **SAMPLING**

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# What is **SAMPLING**?

- Process of selecting just a small group of cases from out of a large group is called **sampling**.
- A **SAMPLE** should reflect the characteristics of the *population*.
- Aims to test the **STATISTICAL HYPOTHESIS**

# History of SAMPLING

- Presidential election of 1916 between Woodrow Wilson and Charles Evans Hughes
- Wrong prediction in 1936 that predicted victory of Alf Landon against Franklin D. Roosevelt
- The year also witnessed the rise of Mr. George Gallup
- In 1948, the new technique introduced by Gallup failed to predict the result of presidential election between Governor THOMAS DEWEY and HARRY TRUMAN.

# Some **KEY** concepts of **SAMPLING**

- A *sampling element* is the unit of analysis or case in a population. It can be a person, a group, an organization.
- The large pool is the *population* which has an important role in sampling. Some times the term *universe* Is used interchangeably with population. To define the population, a researcher specifies the unit being sampled the geographical location, and the temporal boundaries of population.
- *Sampling units* are the individual entities that make up the sample.
- The *sampling frame* may be defined as the listing of all units in the working population from which the sample will be selected.

*Continued....*

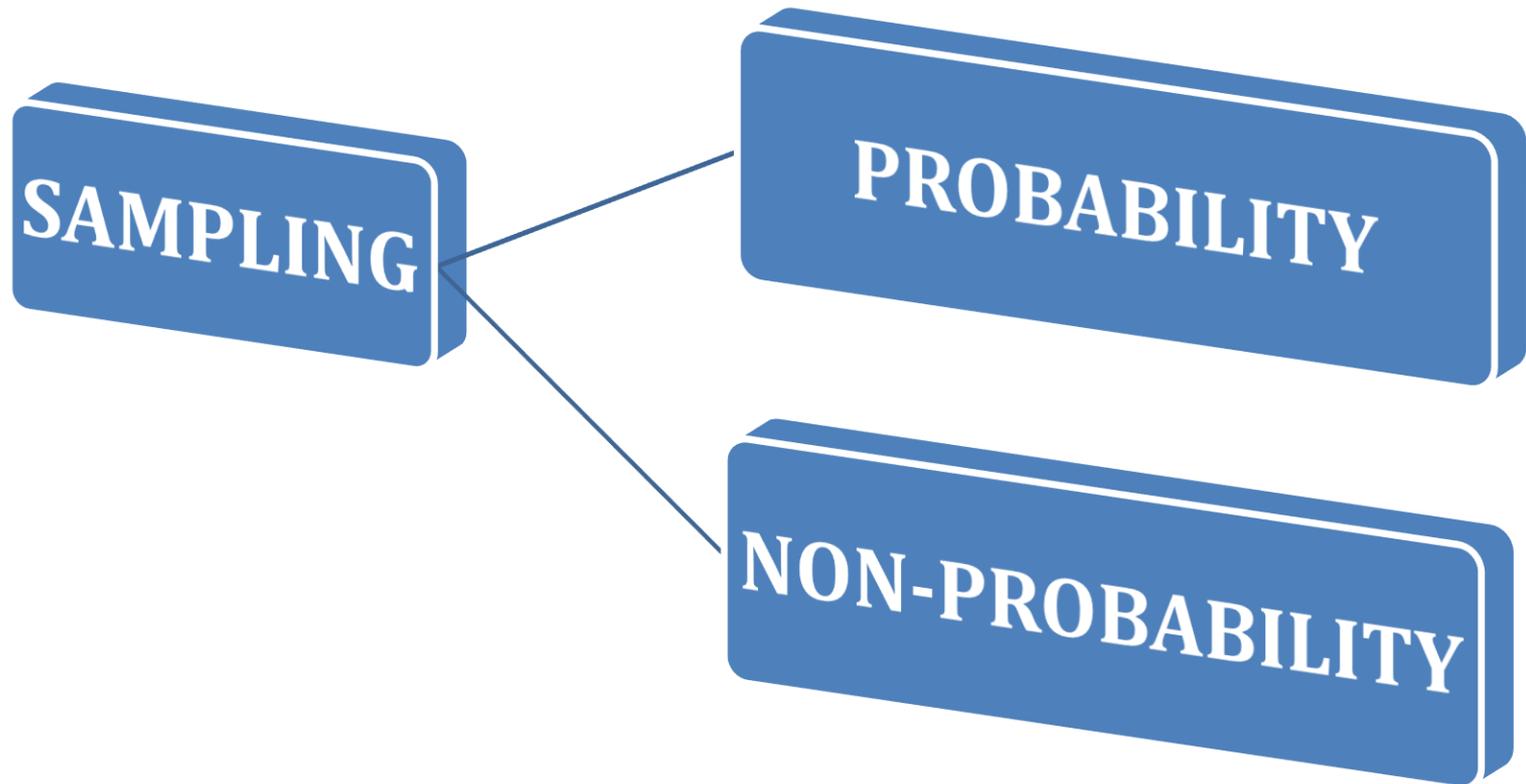
## *Continued...*

- ***Sampling Error*** is the difference between a sample and the population.
- ***Non-sampling Error*** is the differences between the population and the sample because of inadequate sampling frame or non-response or from such problems as poor question wording, poor interviewing, or flawed processing of data.

# Characteristics of a GOOD SAMPLE

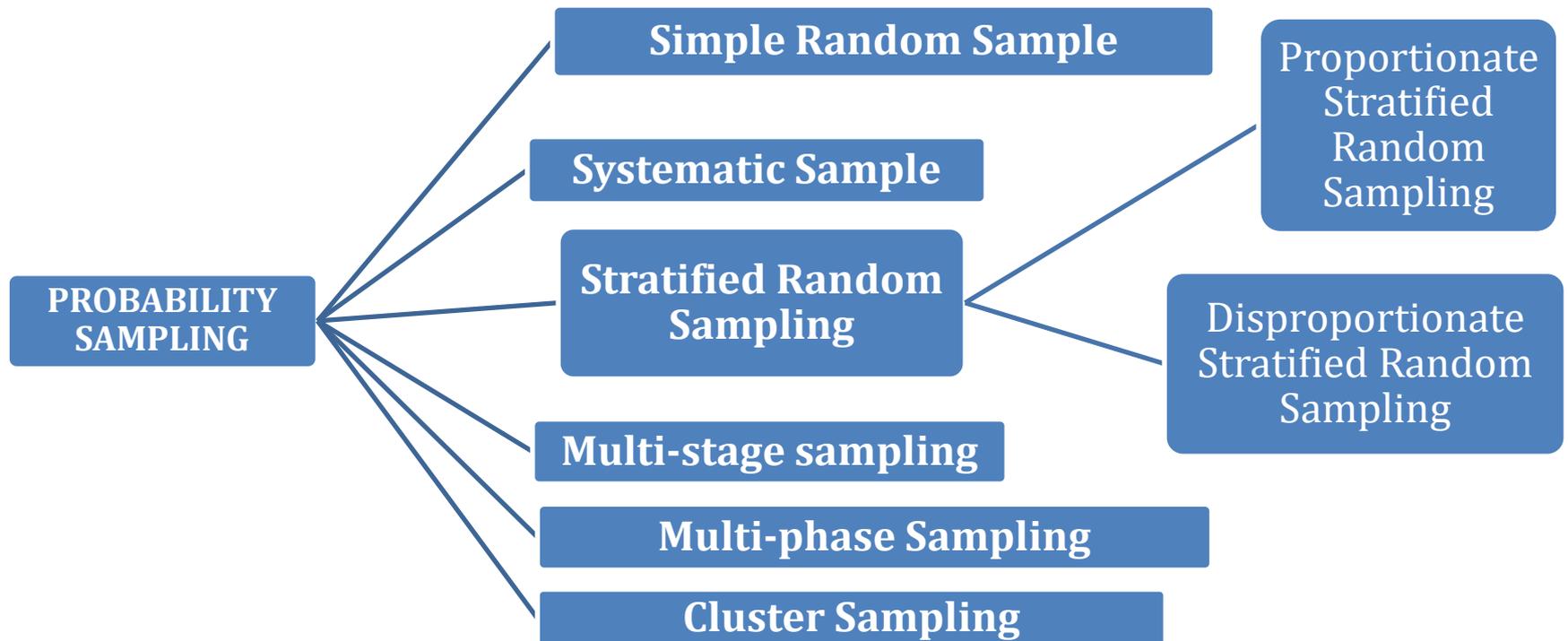
- Representativeness- represent the population
- Accuracy- Absence of bias
- Precision- Absence of error
- Size- adequate, neither too small nor too large

# Types of **SAMPLING**



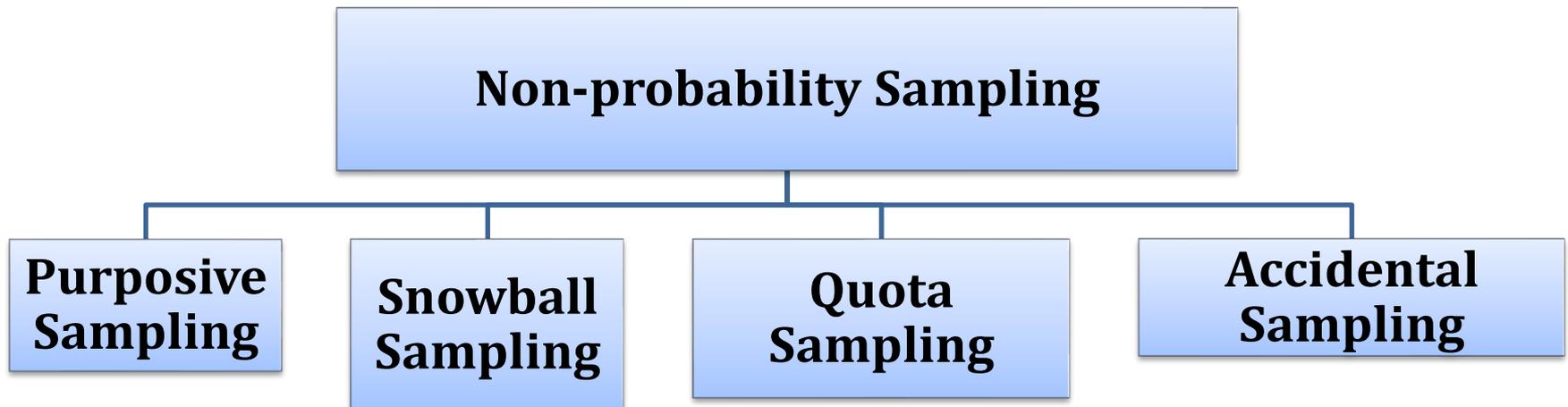
# PROBABILITY SAMPLING AND ITS TYPES

*Probability sample: A sample where each unit in the population has a chance of being selected.*



# NON-PROBABILITY SAMPLING AND ITS TYPES

*Non-probability sample: A sample where some units in the population are more likely to be selected than others.*



**END OF SESSION V**

# **FORMULARTION OF TOOLS OF DATA COLLECTION**

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## **FORMULATE TOOLS OF DATA COLLECTION FOR THE FOLLOWING STUDY**

A Study on Role of NGOs in implementing the Right to Education Act, 2009 in Sonitpur District, Assam.

- To study the factors influencing involvement of NGO's in implementing the Right to Education Act, 2009;
- To understand the kind of approaches adopted by the NGOs;
- To examine the sustainability of the positive changes induced by the NGOs, and
- To explore the kind of challenges faced by the NGOs in implementing the Right to Education Act, 2019.

# **METHODS AND TOOLS OF DATA COLLECTION**

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# **METHODS and TOOLS**

- Method is the process of doing something
- Tool is the instrument used to follow that process

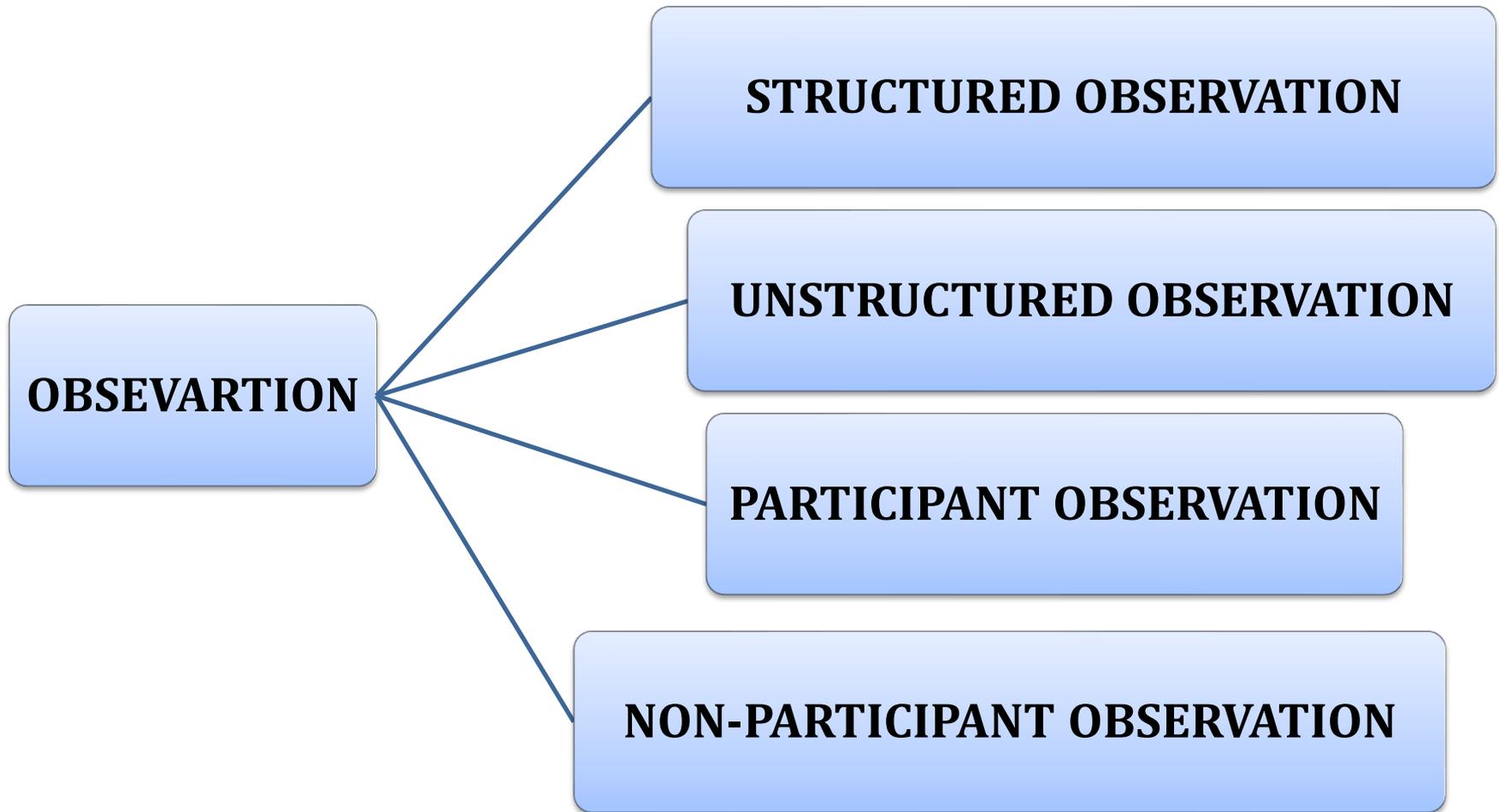
# **Methods & Tools Of DATA COLLECTION**

**1. OBSERVATION**

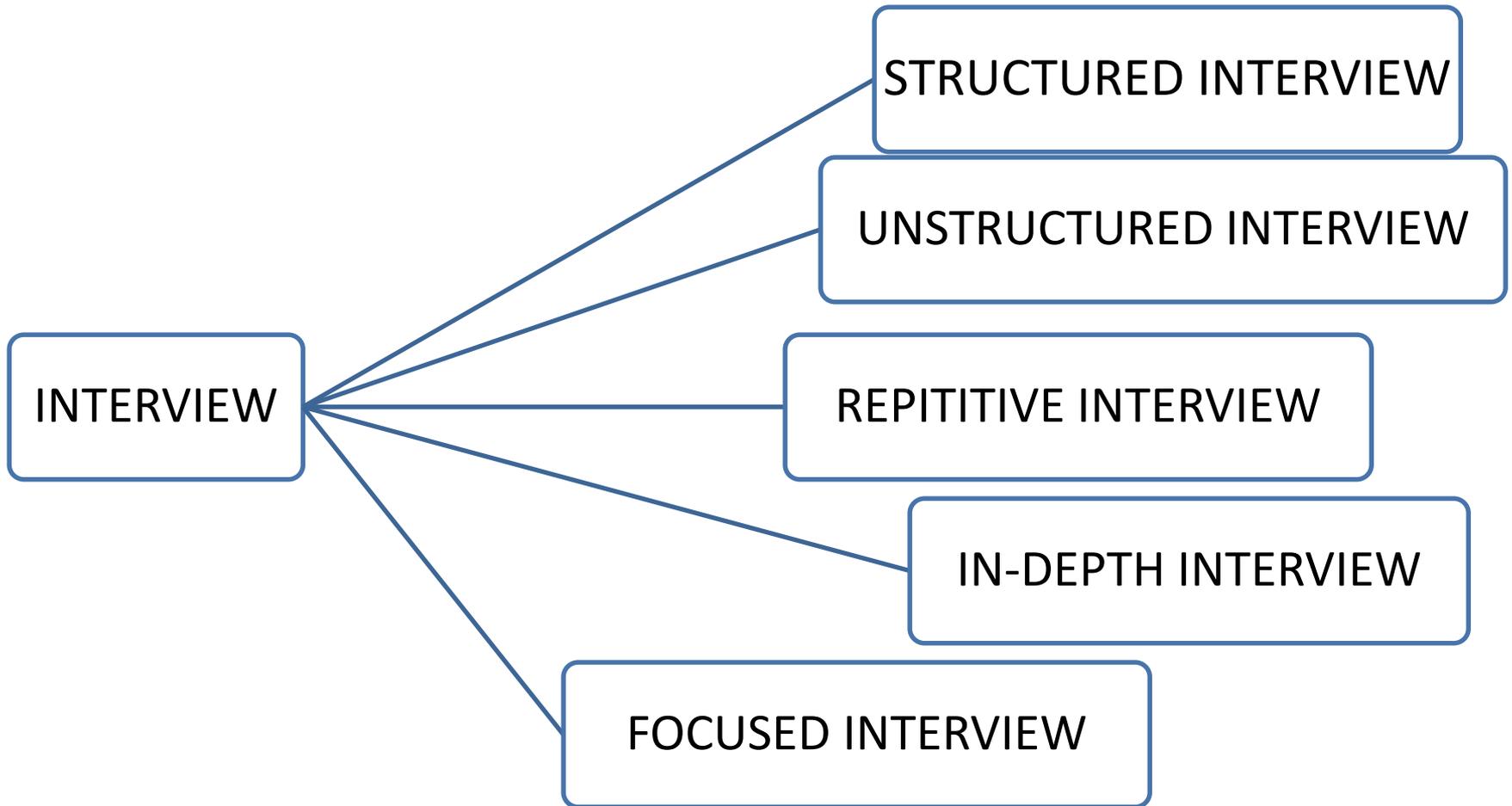
**2. INTERVIEW**

**3. QUESTIONNAIRE**

# Types of **OBSERVATION**



# Types of **INTERVIEW**



# TOOLS of DATA COLLECTION

- Observation
- Interview schedule
- Questionnaire
- PRA tools
- Case study
- Home visit
- Focus Group Discussion

# OBSERVATION

