# BHARATHIDASAN UNIVERSITY

## TIRUCHIRAPPALLI-620 024,

## Tamilnadu, India

**Programme :** MASTER OF PHYSICAL EDUCATION

**Course Title:** RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES

**Course Code:** 21MPE23

**Unit -II**

**METHODS OF RESEARCH**

**Dr. A. MAHABOOBJAN & Dr. R. JAGATHESAN**

**Department of Physical Education and Yoga**

## Unit-II

## Methods of Research

Descriptive research methods are used to systematically describe a population, situation, or phenomenon. Unlike experimental research, which seeks to test hypotheses or determine cause-and-effect relationships, descriptive research focuses on providing a comprehensive overview of a specific subject. Here are some key characteristics, types, and examples of descriptive research methods:

Key Characteristics of Descriptive Research

1. Non-experimental: Descriptive research does not manipulate variables but instead observes and describes them as they naturally occur.
2. Quantitative or Qualitative: It can be both quantitative (involving numerical data and statistics) and qualitative (involving textual or visual data).
3. Focus on "What": Descriptive research answers questions about "what" is happening regarding the phenomena of interest rather than "why" or "how."
4. Methodical Collection: The data collection process is structured to ensure consistency and reliability in the information gathered.

Types of Descriptive Research Methods

1. Surveys and Questionnaires:
    - Description: Surveys involve asking participants a series of questions to gather information about their opinions, behaviors, or characteristics.
    - Example: A researcher might conduct a survey of college students to examine their study habits and academic performance.
2. Observational Studies:
    - Description: Observational methods involve watching subjects in their natural environment without intervention. This can be either participant observation (the researcher engages with the subjects) or non-participant observation (the researcher remains detached).
    - Example: A researcher observing social interactions in a public park to study patterns of human behavior.
3. Case Studies:
    - Description: A case study involves an in-depth examination of a single case or a small number of cases. It often includes various data sources, such as interviews, documents, and observations, to develop a comprehensive understanding.

- Example: Analyzing the life history of a successful entrepreneur to identify factors contributing to their success.

4. Content Analysis:
    - Description: This method involves systematically analyzing the content of various media, written texts, or other forms of communication to identify patterns, themes, or biases.
    - Example: Analyzing social media posts to identify common themes in public reactions to a current event.
5. Longitudinal Studies:
    - Description: Longitudinal studies involve observing the same subjects over an extended period to identify changes or developments in their characteristics or behaviors.
    - Example: Following a cohort of individuals over several years to study the development of a particular disease.
6. Cross-Sectional Studies:
    - Description: A cross-sectional study examines a population at a single point in time to provide a snapshot of characteristics, attitudes, or behaviors.

- Example: Assessing the dietary habits of different age groups in a community at a specific time.

7. Correlational Research:
    - Description: Although this method involves examining the relationships between two or more variables, it is often descriptive in nature when it focuses on describing trends without establishing cause-and-effect.
    - Example: Studying the correlation between physical activity levels and mental health outcomes in a specific population.

Steps in Conducting Descriptive Research

1. Identify the Research Problem: Clearly define what you want to study, including the population, context, and purpose of the research.
2. Select the Research Method: Choose the most appropriate descriptive research method based on your research question and objectives.
3. Develop Data Collection Tools: Create surveys, observation guidelines, interview questions, or content analysis protocols as needed.
4. Collect Data: Utilize the chosen method to gather data systematically.

5. Analyze Data: Use statistical or qualitative analysis methods to interpret the collected data. For quantitative data, you might use descriptive statistics (e.g., means, frequencies) and for qualitative data, thematic analysis could be employed.
6. Report Findings: Present the results in a clear and organized manner, including tables, graphs, and narratives. Ensure to discuss the findings in relation to the research questions.
7. Draw Conclusions and Make Recommendations: Based on the findings, draw conclusions about the subjects studied and suggest possible applications or areas for further research.

Limitations of Descriptive Research

While descriptive research provides valuable insights, it also has limitations:

- Lack of Causality: Descriptive methods cannot establish cause-and-effect relationships due to the absence of manipulation of variables.
- Subjectivity: Particularly in qualitative approaches, the researcher's biases may influence data interpretation.
- Limited Scope: Descriptive studies may not provide comprehensive explanations as they focus mainly on "what" is happening rather than "why."

**SURVEY STUDY**

A survey study is a research method used to gather information from a predefined group of respondents. It is one of the most common and versatile data collection techniques in social science, health research, market research, and education. Surveys can be utilized for various purposes, including measuring attitudes, beliefs, behaviors, characteristics, and experiences.

Key Components of a Survey Study

1. Research Objectives:
    - Clearly define the purpose of the survey. What information are you trying to gather? What hypotheses or questions do you want to answer?
2. Target Population:
    - Determine the population you want to study. This could be a specific demographic, such as employees in a company, students in a school, or customers of a service.
3. Sampling Method:
    - Choose a sampling method to select respondents from the target population. Common methods include:
        - Random Sampling: Every member of the population has an equal chance of being selected.

        - Stratified Sampling: The population is divided into subgroups (strata), and random samples are taken from each subgroup.
        - Convenience Sampling: Respondents are selected based on availability and willingness to participate, which is practical but may introduce biases.
4. Survey Design:
    - Design the survey instrument, which may be a questionnaire or an interview guide. Key considerations include:
        - Types of Questions: Use a mix of closed-ended questions (e.g., multiple choice, Likert scale) for quantitative data and open-ended questions for qualitative insights.
        - Clarity and Conciseness: Ensure questions are clear, straightforward, and unbiased to avoid confusion and leading responses.
        - Logical Flow: Organize questions in a logical order to facilitate smooth responses. Start with easier questions to engage respondents.
5. Data Collection:
    - Administer the survey using appropriate methods, such as:

        - Online Surveys: Using platforms like SurveyMonkey, Google Forms, or Qualtrics to reach a broad audience efficiently.
        - Telephone Surveys: Conducting interviews over the phone, which can be useful for obtaining immediate responses.
        - In-person Surveys: Administering surveys face-to-face, which can lead to higher response rates but requires more resources.
        - Mail Surveys: Sending physical questionnaires to respondents; this method can be more time-consuming.
6. Data Analysis:
    - Analyze the collected data using statistical methods appropriate for your research questions. Common techniques include:
        - Descriptive statistics (mean, median, mode) to summarize data.
        - Inferential statistics (t-tests, ANOVA, regression analysis) to understand relationships between variables or test hypotheses.
7. Interpretation and Reporting:
    - Interpret the results in the context of the research objectives. Discuss any patterns, trends, or significant findings.

- Prepare a report or presentation that includes:
  - Introduction and objectives
  - Methodology (sampling, data collection, analysis)
  - Results (including tables and graphs)
  - Discussion and conclusions, highlighting implications and recommendations.

Advantages of Survey Studies

- Cost-Effectiveness: Surveys can be relatively inexpensive to administer, especially online.
- Versatility: Surveys can gather a wide range of information on various topics.
- Quantifiable Data: The use of closed-ended questions allows for straightforward quantification and statistical analysis.
- Large Sample Sizes: Surveys can often reach a large number of participants, increasing the reliability of the results.

Limitations of Survey Studies

- Response Bias: Respondents may not always provide honest or accurate answers, leading to biased conclusions.
- Sampling Error: If the sample is not representative of the population, findings may not generalize well.

- Limited Depth: While surveys can gather broad information, they often lack the depth and context that qualitative methods provide.
- Misinterpretation: Poorly worded questions or ambiguous options may confuse respondents and affect data quality.

**CASE STUDY**

A case study is a qualitative research method that involves an in-depth investigation of a particular individual, group, event, or phenomenon. Researchers use case studies to explore complex issues in real-life contexts, providing a comprehensive understanding of the case under investigation. This method is widely used in various fields, including social sciences, education, psychology, business, and health care.

Key Characteristics of Case Studies

1. In-depth Analysis: Case studies focus on a single instance or a small number of instances, allowing for thorough exploration of the subject.
2. Contextual Understanding: They provide insights into the context surrounding the case, including environmental, social, cultural, and historical factors.

3. Multiple Data Sources: Case studies often use various data collection methods, such as interviews, observations, document analysis, and audiovisual materials to gather rich qualitative data.
4. Descriptive and Exploratory: They can be descriptive (outlining what happened) or exploratory (examining why and how something happened).

**Types of Case Studies**

1. Exploratory Case Studies: These are used to explore new areas where little information exists. They help formulate hypotheses and identify variables for future research.
    - Example: A researcher studying a new educational program in a school to understand its implementation challenges.
2. Explanatory Case Studies: These aim to explain causal relationships, focusing on understanding the reasons behind a specific occurrence.
    - Example: Investigating the reasons behind a company's sudden financial success after implementing a new marketing strategy.
3. Descriptive Case Studies: These provide a detailed account of a specific case, characterizing its unique aspects.
    - Example: A detailed examination of a community's response to a natural disaster.

4. Intrinsic vs. Instrumental Case Studies:
    - Intrinsic Case Studies: Focused on understanding the particular characteristics of a case for its own sake.
    - Instrumental Case Studies: Use a case to illustrate a broader principle or theory.

**Steps in Conducting a Case Study**

1. Define the Research Problem: Clearly articulate the research question or problem you want to explore through the case study.
2. Select the Case: Choose the individual, group, or phenomenon that will serve as the subject of the study. Ensure that it is relevant and can provide valuable insights into your research question.
3. Develop a Research Plan: Outline your approach, including the methods of data collection (e.g., interviews, observations, documents) and the theoretical framework guiding your analysis.
4. Data Collection:
    - Interviews: Conduct interviews with participants to gather detailed personal accounts and insights.
    - Observations: Observe the subject in its natural environment to collect contextual information.

- Document Analysis: Review relevant documents (reports, records, publications) to supplement your findings.

5. Data Analysis:
    - Organize and analyze the data collected, identifying themes, patterns, and relationships.
    - Utilize qualitative analysis techniques, such as coding and thematic analysis, to interpret the data.
6. Report Findings:
    - Present the case study findings in a structured format, including an introduction, methodology, results, discussion, and conclusions.
    - Provide rich descriptions and direct quotations from participants to illustrate key points.
7. Draw Conclusions and Implications:
    - Discuss the significance of the findings in relation to the research question and existing literature.
    - Consider potential implications for practice, policy, or further research.

**Advantages of Case Studies**

- Rich and Detailed Data: Case studies provide comprehensive insights into complex issues that quantitative methods may overlook.

- Contextual Understanding: They allow researchers to explore the interplay of multiple factors within their specific contexts.
- Flexibility: Researchers can adapt their methods and approaches as they progress in their investigation.
- Theory Development: Case studies can contribute to theory-building by illustrating relationships and patterns not previously considered.

**Limitations of Case Studies**

- Subjectivity: The researcher's biases may influence the data collection and interpretation, affecting the study's reliability.
- Generalizability: Findings from a single case study may not be generalizable to broader populations, limiting their applicability.
- Time-Consuming: Conducting an in-depth case study can require significant time and resources.
- Limitations in Data Variability: While multiple data sources can enrich the study, they may also complicate analysis and interpretation.

## Introduction to Historical Research

Historical research is a qualitative research method aimed at interpreting and understanding past events, processes, and contexts. It involves the systematic investigation of primary and secondary sources to gather information about historical phenomena. The primary goal of historical research is to reconstruct the past and derive meaningful insights that can inform current understanding and future outcomes.

Historical research may be used in various fields, including social sciences, education, literature, political science, and more. By exploring different time periods, cultures, and events, researchers can identify patterns, causations, and consequences that contribute to the broader narrative of human history.

## Significance of Historical Research

- Contextual Understanding: Helps place contemporary issues in historical context, revealing how past events and decisions shape the present.
- Cultural Insights: Enables a deeper understanding of societal values, beliefs, and practices across time, informing discussions on culture and identity.
- Critical Thinking: Encourages critical analysis of sources and narratives, fostering skills in evaluation and interpretation.

- Lessons Learned: Provides insights from history that can guide current and future decision-making in various sectors.

**Steps in Historical Research**

Conducting historical research involves several systematic steps to ensure rigor and accuracy. Here's a detailed breakdown:

1. Define the Research Question or Topic:
    - Begin by identifying a specific question or topic of interest. This could relate to a particular event, figure, movement, or cultural phenomenon. The research question should be clear, focused, and significant.
2. Conduct a Literature Review:
    - Review existing literature related to your topic to understand the current state of knowledge and identify gaps. This includes scholarly articles, books, theses, and previous research findings that inform your area of inquiry.
3. Identify Primary and Secondary Sources:
    - Primary Sources: Original documents or artifacts from the period under study (e.g., letters, diaries, official documents, photographs, oral histories).

- Secondary Sources: Analyses or interpretations of primary sources produced by other scholars (e.g., history books, articles that provide context, and academic critiques).

4. Collect Data:
    - Gather the identified primary and secondary sources. This may involve:
        - Visiting libraries, archives, and museums to access original documents.
        - Utilizing digital archives and databases for online access to historical documents.
        - Conducting interviews or oral histories if applicable.
5. Analyze the Sources:
    - Examine the collected data critically. Look for patterns, relationships, and discrepancies among the sources. Consider the context in which the sources were created, and evaluate their credibility, perspective, and bias.
6. Interpret the Findings:
    - Develop interpretations of the data based on your analysis. Consider how your findings contribute to understanding the research question and the broader historical context.
7. Contextualize the Research:

- Situate your findings within the larger framework of historical scholarship. Discuss how your research relates to existing narratives and interpretations, addressing its implications for the understanding of the topic.

8. Write the Report:
    - Prepare a comprehensive report or thesis presenting your research findings. The structure typically includes:
        - Introduction: Present the research question, significance, and objectives.
        - Literature Review: Summarize existing research and literature.
        - Methodology: Explain how data was collected and analyzed.
        - Findings: Detail the results of your analysis, providing evidence from your sources.
        - Discussion and Interpretation: Reflect on the implications of your findings.
        - Conclusion: Summarize the contributions of your research and suggest areas for further study.
9. Review and Revise:
    - After drafting the report, review it for clarity, coherence, and comprehensiveness. Revise as necessary based on feedback from peers or mentors.

10. Disseminate Findings:
    - Share your research through publication in academic journals, presentations at conferences, or community forums to engage with a broader audience and contribute to scholarly discourse.

**SOURCES OF HISTORICAL RESEARCH**

In historical research, sources are critical as they provide the raw material from which historians construct narratives and interpretations of past events and phenomena. Sources can be categorized into primary and secondary sources, each serving distinct purposes in research. Here's a breakdown of different types of sources used in historical research:

1. Primary Sources

Primary sources are original materials created during the time period being studied or by individuals directly involved in the events. They offer firsthand accounts and direct evidence related to the topic under investigation. Examples include:

- Documents:
    - Letters and Correspondence: Personal letters, official communications, and telegrams that provide insights into personal experiences and historical events.

    - Diaries and Journals: Personal records that reflect thoughts, feelings, and daily life during a specific time.
    - Official Records: Government documents, birth and death certificates, treaties, and legal records that provide factual information about events.
    -
- Reports and Publications:
    - Newspaper Articles: Reporting from the time can capture public sentiment and events as they unfolded.
    - Government Reports: Publications issued by governmental bodies, commissions, or agencies regarding specific issues, policies, or investigations.
- Visual Materials:
    - Photographs and Paintings: Images that depict scenes, people, and events from the past, offering visual context to historical narratives.
    - Maps: Historical maps can provide insights into territorial changes and geographical context.

- Artifacts:
    - Physical Objects: Items such as tools, clothing, art, and everyday objects that were used during the period being studied.
- Audio and Video Recordings:
    - Oral Histories: Recordings of interviews with individuals recounting their experiences and memories related to historical events.
    - Documentaries and Films: Visual interpretations that may contain firsthand accounts or source material.

**2. Secondary Sources**

Secondary sources analyze, interpret, or summarize primary sources and historical events. They provide context, critique, and synthesize information that can help historians understand the significance of primary sources. Examples include:

- Books:
    - Historical Texts: Scholarly works written by historians or authors that provide an analysis of particular events, periods, or themes.
    - Biographies: Accounts that explore the lives and impacts of significant individuals in history.

- Articles:
    - Journal Articles: Scholarly papers published in academic journals that review or critique primary sources or historical topics.
    - Essays: Analytical pieces that discuss specific aspects of history, often appearing in collections or anthologies.
- Reviews:
    - Book Reviews: Critical evaluations of historical texts, offering insights into the author's arguments and contributions to the field.
- Encyclopedias and Dictionaries:
    - Reference Works: Compilations of historical information that provide overviews and definitions related to specific events, places, and concepts.

3. **Tertiary Sources**

While not typically the focus of historical research, tertiary sources can provide useful introductory information or context. They compile and summarize information from primary and secondary sources. Examples include:

- Textbooks: General histories or surveys of a particular subject that synthesize various viewpoints and findings.

- Chronologies: Timelines that outline historical events in chronological order, providing an overview of periods or movements.
- Bibliographies: Lists of sources that guide further research on a particular topic.

4**. Digital Sources**

In the modern era, digital sources have become increasingly important in historical research. They can include:

- Digital Archives: Online collections of primary sources, such as documents, photographs, and oral histories made available through institutions and libraries.
- Online Journals: Digital versions of academic journals that publish historical research.
- Databases: Research databases that provide access to historical texts, articles, and archival materials.

**PRIMARY DATA AND SECONDARY DATA**

In research, particularly in historical research but also in social sciences and other fields, data can be categorized into two main types: **primary data** and **secondary data**. Understanding these distinctions is vital for effectively designing research, interpreting findings, and making valid conclusions.

**Primary Data**

**Primary data** refers to original, first-hand information collected directly by the researcher for a specific research purpose. This data has not been previously published or analyzed and is unique to the researcher's study. Primary data is invaluable because it provides direct evidence relevant to the research question at hand.

**Characteristics of Primary Data:**

- **Originality:** It is collected for the specific study at hand, meaning it has not been previously documented or analyzed.
- **Specificity:** Tailored to meet the needs of the particular research question or hypothesis.
- **Timeliness:** Reflects the most current information available, particularly when contemporary events are involved.

**Examples of Primary Data:**

- **Surveys and Questionnaires:** Custom-designed questions to gather information directly from individuals about their views, experiences, or behaviors.
- **Interviews:** In-depth discussions with individuals or groups to obtain comprehensive insights or personal narratives.
- **Observations:** Direct observation of events or behaviors in natural settings.

- **Experiments:** Data gathered from controlled experiments structured to test hypotheses.
- **Historical Documents:** Original artifacts such as diaries, letters, government records, photographs, and other firsthand accounts from past events.

**Secondary Data**

**Secondary data**, on the other hand, refers to information that has been previously collected, analyzed, and published by others. This data often serves as a foundation for new research or analysis and can provide context, background, or comparisons.

**Characteristics of Secondary Data:**

- **Pre-existing:** Collected by someone else for a different purpose, meaning it is not original to the current research.
- **Analytical Context:** Often involves interpretation and analysis of primary data and can help researchers understand broader trends or patterns.
- **Time-Consuming:** While it may save the researcher time, using secondary data can sometimes lead to questions about the accuracy or relevance of the data to the new research context.

**Examples of Secondary Data:**

- **Books and Articles:** Scholarly publications that analyze historical events or topics, providing interpretation and synthesis of primary sources.
- **Research Reports:** Reviews and findings compiled by researchers that summarize existing data and conclusions related to specific areas of study.
- **Statistical Databases:** Collections of numerical data that have been compiled by government agencies, NGOs, or research institutions, providing insights into trends over time.
- **Historical Analyses:** Assessments of historical events based on the interpretation of primary documents by different historians or researchers.

**Key Differences Between Primary and Secondary Data**

| Aspect | Primary Data | Secondary Data |
|---|---|---|
| **Origin** | Collected firsthand by the researcher | Collected by others, previously published |
| **Purpose** | Specific to the researcher's study | Often used to provide context or support for new research |
| **Originality** | Original data, tailored to specific research needs | Interpretations or analyses of original data |
| **Examples** | Surveys, interviews, original documents | Books, articles, reports, databases |
| **Quality Control** | Depends on the researcher's methods | Varies based on the reliability of the original sources |

**Historical Criticism: Internal Criticism and External Criticism**

Historical criticism is an essential method used by historians to evaluate and interpret historical sources. It involves analyzing texts and artifacts to determine their authenticity, origin, and reliability. Historical criticism can be divided into two primary categories: **internal criticism** and **external criticism**. Each plays a unique role in assessing a source's value for understanding past events.

**1. External Criticism**

**External criticism** (also known as **lower criticism**) focuses on the broader context surrounding a document or artifact. It examines the provenance, authenticity, and physical characteristics of the source to ascertain its reliability and credibility. The goal of external criticism is to ensure that the source is genuine and to understand the circumstances of its creation.

**Key Aspects of External Criticism:**

- **Authorship:** Investigating who wrote or created the document, and whether the author is credible and knowledgeable about the subject.
- **Date and Context:** Determining when the document was created and understanding the historical context in which it was produced. This includes examining historical events, social conditions, and cultural norms at the time.

- **Physical Examination:** Analyzing the material aspects of artifacts, such as the type of ink, paper, or other materials used, as well as the handwriting or printing style. This can help in establishing authenticity and ruling out forgeries.
- **Provenance:** Tracing the history of the document or artifact's ownership and transmission. Understanding how the source has been preserved and passed down is crucial for assessing its reliability.
- **Comparative Analysis:** Comparing the document or artifact with other known, verified sources to see if the information matches or is corroborated by other evidence.

**2. Internal Criticism**

**Internal criticism** (also known as **higher criticism**) deals with the content of the document itself. It examines the text's meaning, purpose, biases, and the reliability of the information presented. The aim of internal criticism is to determine how accurately the source represents the events or ideas it describes.

**Key Aspects of Internal Criticism:**

- **Content Analysis:** Evaluating the substance of the document, including its arguments, themes, and narratives. This includes analyzing language, style, and rhetoric used by the author.

- **Bias and Perspective:** Identifying any potential biases in the document. Every author has a perspective that can influence their portrayal of events, and understanding this bias is crucial for interpretation.
- **Contextual Understanding:** Placing the text within larger historical, cultural, or social contexts. Internal criticism considers the motivations behind the author's writing and how the context may shape the narrative.
- **Contradictions and Consistency:** Identifying any inconsistencies or contradictions within the document. This includes exploring how well the text aligns with other known historical facts or events.
- **Intended Audience:** Analyzing who the intended audience was and how that might influence the presentation and tone of the material.

**Tools of research – questionnaire, opinionaires, interviews and observations.**

In research, particularly in social sciences, qualitative studies, and various empirical investigations, researchers employ various tools to gather data. These tools help in collecting information from individuals or groups, allowing for both qualitative and quantitative analysis. Below are some key research tools: questionnaires, opinionaires, interviews, and observations.

**1. Questionnaires**

**Definition:** A questionnaire is a structured set of questions designed to gather specific information from respondents. It can include closed-ended questions (with predefined answers) and open-ended questions (allowing for free responses).

**Characteristics:**

- **Standardization:** All respondents answer the same questions, making data comparison straightforward.
- **Scalability:** Can be distributed to a large number of people, facilitating data collection from diverse populations.
- **Cost-Effective:** Can be administered in person, via mail, or online, often at a lower cost and with less time required than individual interviews.

**Types of Questions:**

- **Closed-Ended Questions:** e.g., multiple-choice, yes/no, Likert scale (e.g., "On a scale from 1 to 5, how satisfied are you?")
- **Open-Ended Questions:** e.g., "What do you think about the current education system?"

**Uses:**

- Surveys, market research, academic studies, and assessments of public opinion.

**2. Opinionaires**

**Definition:** An opinionaire is similar to a questionnaire but specifically focuses on gathering subjective opinions, attitudes, or beliefs from participants about particular topics or issues.

**Characteristics:**

- **Emphasis on Attitudes or Opinions:** Designed to capture the feelings, preferences, or attitudes of respondents rather than factual data.
- **Various Response Formats:** Can include scales (e.g., strongly agree to strongly disagree) or open-ended questions.

**Uses:**

- Assessing public opinion on social issues, evaluating customer satisfaction, or exploring complex topics where beliefs and attitudes are critical.

### 3. Interviews

**Definition:** An interview is a direct, face-to-face or remote conversation between a researcher and a respondent, where the researcher asks a series of questions to gather detailed information.

**Characteristics:**

- **Flexibility:** Allows for follow-up questions and adaptive dialogue based on responses, leading to deeper insights.
- **Personal Interaction:** Facilitates rapport building, which can yield richer data through more open and honest responses.
- **Types:** Structured (with predetermined questions), semi-structured (guidelines but allows for prompted discussions), or unstructured (open-ended conversations).

**Uses:**

- Qualitative research, ethnographic studies, in-depth explorations of topics, and gathering firsthand accounts or narratives.

**4. Observations**

**Definition:** Observation involves systematically watching and recording behaviors, interactions, or events as they occur in their natural setting without intervening.

**Characteristics:**

- **Naturalistic Context:** Data is collected in genuine environments, allowing researchers to see real behaviors rather than reported thoughts or feelings.
- **Types:**
    - **Participant Observation:** The researcher becomes part of the group or setting being studied.
    - **Non-participant Observation:** The researcher observes from a distance without engaging with the subjects.