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Course: Data Analysis
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Chapter 03

fieldwork



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Chapter Objectives:

At the end of the chapter, the learner will be able to:

- Understand the Concept of Fieldwork and its importance in data analysis
- Define Clear Objectives for Fieldwork that align with the overall goals of a project or research.
- Discover and Understand the Phases of Fieldwork: From Planning to Analysis

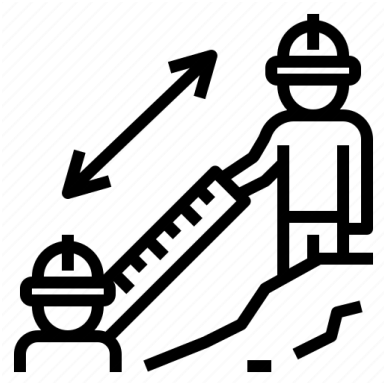
Chapter 03: Fieldwork

1. WHAT is fieldwork?

Fieldwork is the process of collecting raw data or information directly from the environment or context relevant to a study, research project, or practical application. It typically involves going outside of controlled or laboratory settings to gather data through observation, measurement, interviews, surveys, or other hands-on techniques
Fieldwork allows researchers, project managers, and practitioners to directly engage with the subjects or sites they are studying, ensuring that the data collected is authentic, relevant, and reflective of actual conditions.

In the context of construction project management, fieldwork may include site visits to track project progress, surveys to understand stakeholder satisfaction, or interviews with project managers to assess decision-making processes. The data collected can be used to evaluate factors such as project delays, cost overruns, or resource management, ultimately leading to improvements in project performance.

2.Objectives of Fieldwork



- Obtaining firsthand, **original or primary data sources** as interviews, surveys, or observations. (Zvobgo. k, et al. 2022).
- Fieldwork enables researchers to collect and access **original or primary data sources**, crucial for empirical research.
- Validating or challenging existing hypotheses through empirical data from the field.
- Fieldwork can provide rich and detailed information that cannot be obtained through other research methods.
- Establishing direct interactions with participants or stakeholders, which enriches the research process.

3. Phases of Fieldwork: From Planning to Analysis

Fieldwork can be divided into three key phases: Planning, Execution, and Analysis. Each phase plays a critical role in ensuring successful data collection and interpretation

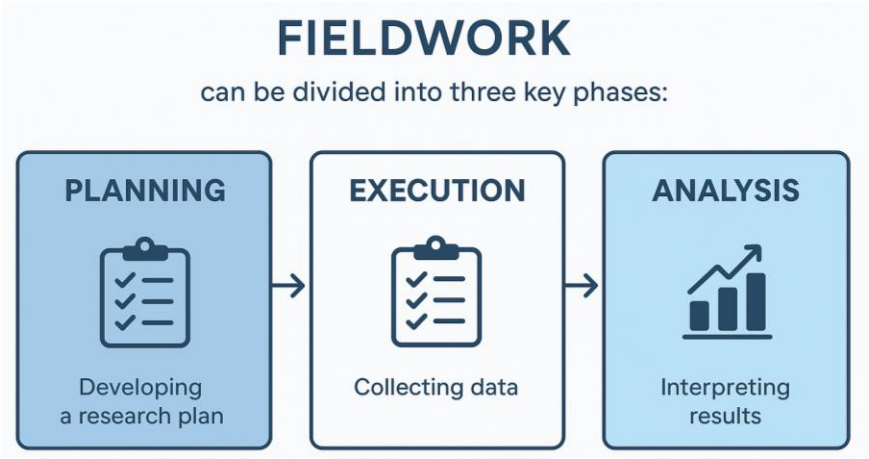


Figure 01 : Phases of Fieldwork . **Source :** Author

3.1 Planning for Fieldwork

Planning is critical to ensure the fieldwork is well-organized, time-efficient, and yields useful data.

The **planning phase** involves defining the research problem, selecting the site, designing tools, and obtaining ethical approval (Scheyvens & Storey, 2014).

3.1.1. Defining Objectives

- Establish Research Goals: Clearly define the purpose of the fieldwork and the specific questions it will address.

Example: A study aimed at identifying causes of frequent cost overruns in infrastructure projects.

- Expected data: Define whether the research will focus on quantitative data (e.g., cost data, time schedules) or qualitative data (e.g., interviews with project managers).

3.1.2 Designing the Fieldwork Plan

-Method Selection: Choose the appropriate methods (e.g., interviews, surveys, observations) based on research goals.

-Sampling Strategy: Develop a plan for selecting participants or cases to ensure a representative and relevant sample.

Example: Sampling a range of projects from residential buildings to large infrastructure projects to understand different challenges.

-Timeline Development: Create a timeline outlining key stages of the fieldwork and ensure sufficient time for data collection. (Set a timeline that aligns with the construction project's phases (e.g., design, execution, handover).

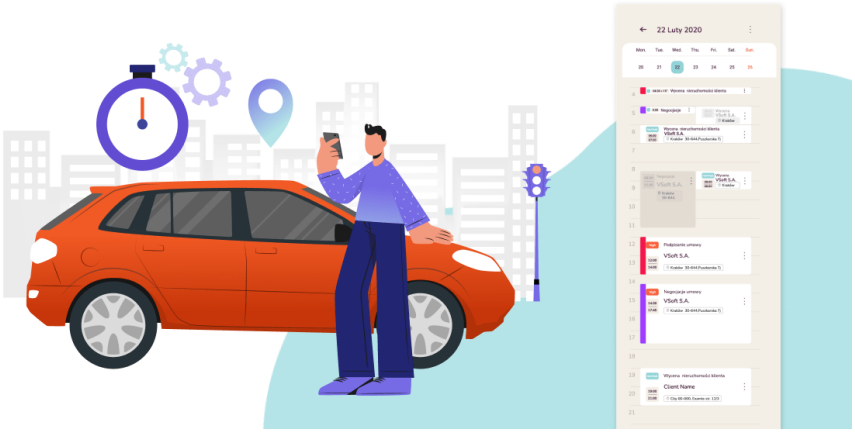
3.1.3 Logistical Preparation

-Field Site Selection: Identify and secure access to field sites. (this might involve gaining permission to access active construction sites or company records.)

-Resource Planning: Arrange for necessary resources such as equipment, transportation, and personnel. (includes gathering appropriate safety gear, data collection tools (cameras, GPS devices, or software for tracking site activities), and securing travel arrangements.

-Budgeting: Allocate financial resources for travel, materials, and personnel.

-Risk Management: Prepare contingency plans to handle unexpected challenges like site access issues or equipment failure.



The preparation phase includes building rapport with the community, training assistants, and testing data collection instruments (DeWalt & DeWalt, 2011).

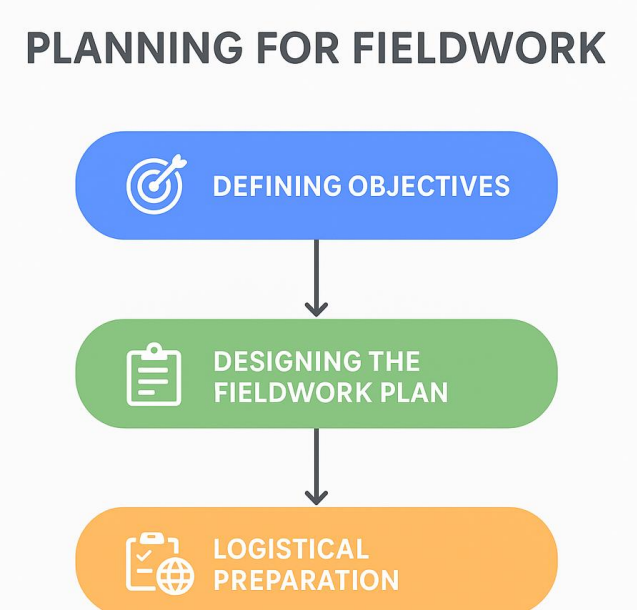


Figure 02 : Planning for fieldwork steps . **Source :** Author

3.2 Executing Fieldwork

This phase involves the actual data collection and requires close adherence to the research plan to ensure data accuracy and completeness.

3.2.1 Data Collection



During the data collection phase, researchers employ various methods such as observation, interviews, surveys, or archival visits to gather primary data (Porter & Grossman, 2004).

Example: In a study on delays, an observer might record how long each phase of construction takes and compare it with the planned schedule.

-Adaptation: Be flexible and adapt to any unforeseen conditions or challenges in the field.

3.2.2 Recording and Documentation

-Systematic Documentation: Maintain accurate and detailed notes, recordings, and logs to ensure data integrity.

Example: Documenting site safety violations with photographs and linking them to potential delays in project progress.

-Backup Procedures: Ensure multiple data backups (digital and physical) to prevent loss of information.

3.3 Analyzing Field Data

Finally, the analysis phase integrates and interprets the collected data to build or test theoretical frameworks. Fieldwork thus contributes not only to data gathering but also to the development and testing of theory (Geddes, 2003).

3.3.1 Data Cleaning and Preparation

-Organizing Data: Sort the raw data into categories such as time, cost, safety, and resources.

Example: If interviewing project managers, group responses by common themes such as communication issues or budget constraints.

-Data Cleaning: Remove errors or incomplete data entries.

3.3.2 Quantitative Data Analysis

-Statistical Analysis: Analyze numerical data such as costs, schedules, and resource allocations. Use statistical tools to identify patterns or correlations, such as the relationship between project size and delay frequency.

-Visualization: Use charts, graphs, and tables to present quantitative findings.

3.3.3 Qualitative Data Analysis

-Thematic Analysis: Identify themes, patterns, and narratives from qualitative data like interviews or observations.

-Coding and Categorization: Organize qualitative data into categories for deeper analysis. **Example:** Coding interview data to group statements about "resource shortages" or "lack of safety compliance

3.3.4 Reporting Findings

-Writing the Report: Structure the findings in a comprehensive report, addressing the research questions with support from both qualitative and quantitative data.

-Presenting Recommendations: Offer actionable insights and recommendations based on the analyzed data.



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