

DATA ACQUISITION, HANDLING AND ANALYSIS



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Type of Data

- Laboratory experiments
- Field experiments
- Observational studies
- Questionnaires

Experimental Research

- Negative control group
- Positive control group ?
- Treatment group(s)
- **Sample size**
- Time period
- Sex of animal / human
- Age
- Parameters to be studied

Example of Experimental Research

- Plants extracts
- In-vitro
- In-vivo
- Negative control
- Positive Control ?
- Treatment(s)

Field Experiment

- (Negative) control group
- (Positive control group) ?
- Target Group(s)
- **Sample size**
- Time period
- Season
- Parameters to be studied
- Area of research
- Age and Sex of animal / human

Example of Field Experiment

- Lead level in hairs
- Control group
- Target (Exp.) group
 - Levels in hairs
 - Levels in ground water
- Environmental factors
 - Area
 - Traffic
 - Season
 - Ground water depth
 - Age of individuals
 - Time spent of individuals at site
 - Home environment
 - Pre-existing disease
 - Etc.

TYPES OF DATA

- **BINARY: Only two possible outcomes**
- Yes /no; disease / no disease, etc.
- **CATEGORICAL: Multiple categories**
- Jersey, Friesian, Sahiwal, cross; etc.
- **ORDINAL: Ordered categories**
- none, light, medium, heavy; etc.
- **NOMINAL : male =1, female = 2**
- **NUMERIC: serum enzyme level, etc.**

RESEARCH DATA

- Collection
- Handling
- Making an Excel Sheet
 - Data Entry into Excel sheet