LECTURE - IV

RESEARCH METHODS
CAUSE AND EFFECT

- Action
- Reaction
- Co-action
- Chain reaction
- Example: Touch Sugar
TYPES OF RESEARCH

- Quantitative
  Exact Phenomena

- Qualitative
  Spread Phenomena
RESEARCH METHODS

- Descriptive Methods.
- Predictive (Relational) Methods
- Explanatory Methods
DESCRIPTIVE METHODS

- **Observational Method.**
  - Naturistic Observations
  - Laboratory Observation

- **Case Study Method**
  - Selected site or Individual
DESCRIPTIVE METHODS

- **Survey Method**
  - Population
  - Sample
  - Random Sampling
  - Stratified Randomized Sampling.

- **Archive Method**
  - Use old data

- **Qualitative Method**
  - Use qualities in nature time vs. growth.
### QUESTIONS FOR SURVEY

#### TABLE 8.1 Examples of types of survey questions

**Open-ended**

Has your college experience been satisfying thus far? __________________________

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**Closed-ended**

Has your college experience been satisfying thus far?

Yes____ No____

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**Partially open-ended**

With regard to your college experience, which of the following factors do you find satisfying?

- Academics____
- Relationships____
- Residence halls____
- Residence life____
- Social life____
- Food service____
- Other____

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**Likert rating scale**

I am very satisfied with my college experience.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
Correlational Method

- **Positive relationship**
  - Both variables increase.
  - Example: Ht. + Wt., Age + Ht.

- **Negative Relationship**
  - One variable increase the second one decreases.
  - Example: Elevation Vs Temperature.
Quasi – experimental Method

- Same individuals or Materials in different set of environment.
- Example: Group Behavior Crows, elephants, mob.
- Subject or Participant Variable.
- Alternative Explanation.
EXPLANATORY METHODS

- **Experimental Method**
  - Cause and effect relation.
  - Description and Prediction.
  - Answers When + Why.
  - Basic Premise.
    - Control base line.
    - Independent Variable and dependent variable.
    - The variables.
    - Experimental group/material.
<table>
<thead>
<tr>
<th>GOAL MET</th>
<th>RESEARCH METHODS</th>
<th>ADVANTAGES/DISADVANTAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Observational method</td>
<td>Allows description of behavior(s)</td>
</tr>
<tr>
<td></td>
<td>Case study method</td>
<td>Does not support reliable predictions</td>
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<tr>
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<td>Quasi-experimental method</td>
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<tr>
<td>Explanation</td>
<td>Experimental method</td>
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</table>
OBSERVATIONS

- Undisguised – Participant.
- Disguised – Non Participant.
- Laboratory.
  - Less Costly.
  - Less Time Consuming.
**Features of Types of Observational Studies**

<table>
<thead>
<tr>
<th></th>
<th>Naturalistic</th>
<th>Laboratory</th>
</tr>
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<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Observing people or other animals in their natural habitats</td>
<td>Observing people or other animals in a contrived setting, usually a laboratory</td>
</tr>
<tr>
<td><strong>Options</strong></td>
<td>Participant versus nonparticipant, disguised versus undisguised</td>
<td>Participant versus nonparticipant, disguised versus undisguised</td>
</tr>
<tr>
<td><strong>Means of data collection</strong></td>
<td>Narrative records, checklists</td>
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</tr>
<tr>
<td><strong>Concerns</strong></td>
<td>Reactivity, expectancy effects, time, money, lack of control</td>
<td>Reactivity, expectancy effects, lack of flexibility</td>
</tr>
</tbody>
</table>
DATA COLLECTION

- Narrative Record.
- Check Lists.
- Tabloid Data.
- Digital Data.
- Pictorial Data.
LIMITATIONS

- Hidden Factor.
- Equipment – Non Availability.
- Phrenology.
- One Study.
- Past Theories.
1. Set up a research study for effect of use of cell phone on drivers.

2. Explain the difference between qualitative and quantitative research.

3. Which is better? Natural or Laboratory Observation.