

01-02-2024

Lecture # 4

Thursday

* SCIENTIFIC RESEARCH :-

↓
systematically
(step by step)

↓ to investigate/explore

① Identification of a Problem:-

ANGER / HAPPINESS

↓
explore the problem

② Review of Literature → Through articles etc

③ Formation of Hypotheses:

→ tentative statement

example : sleep time & list scores (have a link)

→ Hypotheses could be right or wrong

→ links two or more variables

④ Selection of Research Method:

→ Crucial method

→ HOW, WHERE, WHY

⑤ Data Collection:

→ through surveys, interviews, questionnaires

⑥ Analyze the Data:

↳ through ~~stasies~~ statistics, probability etc

⑦ Conclusion:

- ↳ finding the result
- ↳ finding the reason or justification of hypotheses' success or failure
- ↳ evaluate the ~~conclusion~~ hypotheses

⑧ Communication of results (Generalizability):

↳ Generalize over the population from the results ^{generated} from the sample size

* Descriptive methods of Data Collection:

1) Naturalistic Observation:-

↳ Simply observe the naturally
example ~~of~~ observing adjustment issues within the
students in the first semester

- ↳ A disadvantage is that the ~~there~~ environment cannot be controlled
- ↳ Researcher bias (disadvantage)
- ↳ As it is can observe the behaviour of ~~the~~ individuals naturally

2) Laboratory:

- ↳ Can observe individuals in a controlled environment
- ↳ Disadvantage: Less or No generalizability

3) Case Study:

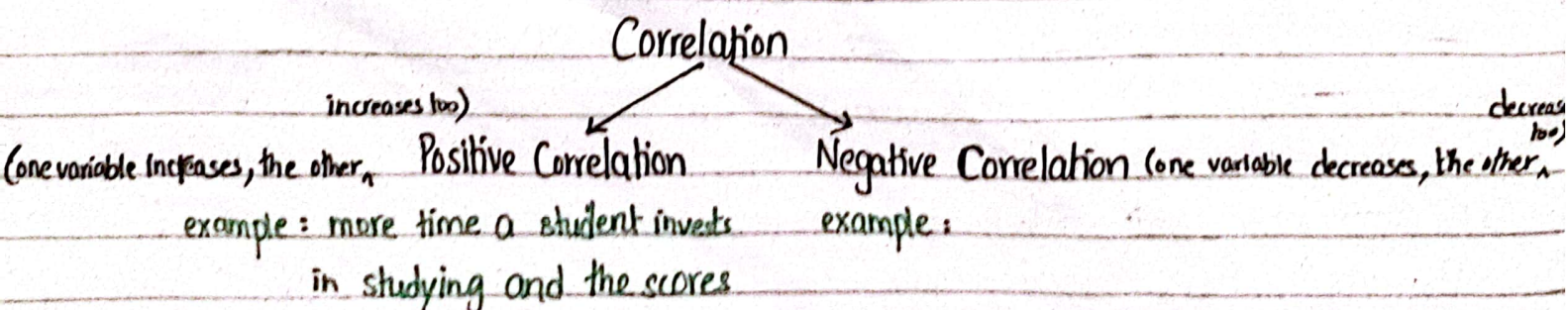
- ↳ Can be conducted on a ^{small} group of people (6-7 persons)
- ↳ in-depth investigation of individuals (advantage)
- example: observing childhood trauma
- ↳ Less generalizability (disadvantage)
- example: for anger issues, a therapy model is made and is conducted on an individual and if it is a success then it can be conducted on other people.

4) Surveys:

- ↳ Easily collect data from a large number of people (advantage)
- ↳ Lack of seriousness/authentic data (disadvantage)

5) Correlation research:

- ↳ research between two ^{different} variables
- ∴ variables :- to change ~~var~~ / vary
- example: childhood abuse and crime rates
- ↳ working hours and level of stress



⑥ Experimental Research:

↳ experiment on one variable and find the effect on the other variable

independent variable → manipulated/treatment

dependent variable → impact

∴ Placebo effect : No treatment is given to one group

example: 20 sample

compare these { ↳ 10 → Therapy/Experimental group
↳ 10 → Placebo effect



Control group

example: experiment on plants (one under sunlight, one under dark)