

DATABASE in Geographical Studies

(2)

Data are the INDIVIDUAL units of Information. In analytical processes data are represented by VARIABLES.

Nature

In Geography, the nature of Geographic Data

Can be examined ① noting that they

↓
pertain to phenomena occurring in an area.

↓
are collected through Fieldwork, ②

↓
including multitude of phenomena.

② Geographical facts/data are spatial can be distinguished from Non-spatial data in two ways

Dimensionality

Every Geographical data/fact deals with the locations of phenomena must on earth's surface which contains minimum of two elements (latitude & longitude).
(2-dimensional space) - 2-d

Also, phenomena should be measured according to their location in 3d space. 3-d

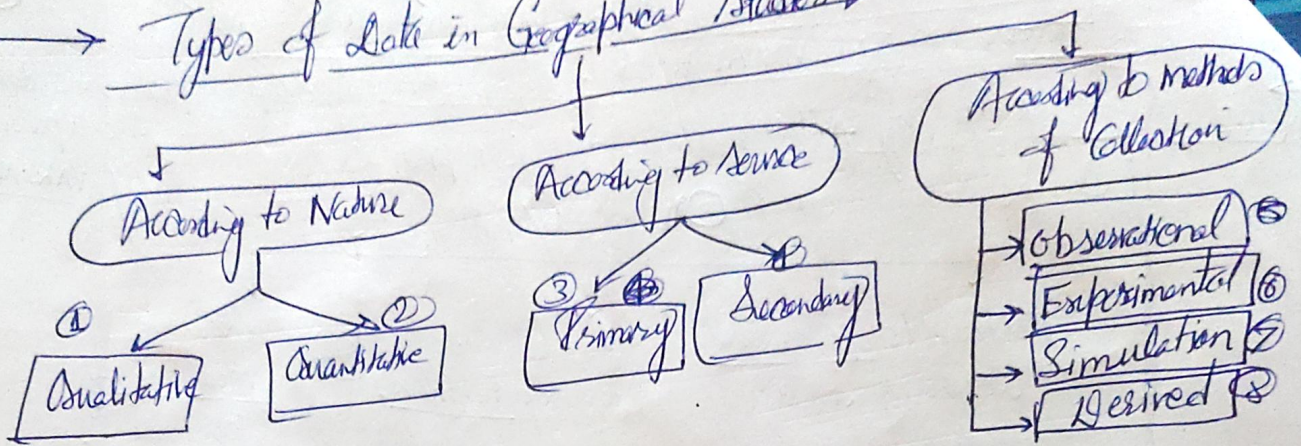
eg → ~~Salt texture~~ → Soil profile
cropping pattern → length & width of the crop etc

Lack of Individuality

(Individual means single object)
↓
But each individual of a discrete phenomena in reality occupies a small area of Earth's surface.

∴ Geographical data is related to phenomena occurring within physical setting @ Context, which must be extracted from a Complex of Interrelated Geographical Phenomena.

Types of Data in Geographical Studies



① It describes Qualities & characteristics. It is collected using Questionnaires, Interviews, observation etc. It is measured & analysed through words, images, ~~sketching~~ sketching etc. This transcribed the patterns, meaning & methods of the data.

② Quantitative ^{data} is used when the researcher is trying to quantify a geographical phenomena under study (what, how many, which etc). It can be counted as well as compared on a numeric scale with instruments & field tools.

③ It refers the data collector for the very first time. It provides the most reliable 1st Hand information about the respondent particular to that phenomena. The researcher would have a clear idea about Terminologies, statistical units, Research Methodology & size of the sample etc.

④ It refers to the data that the researcher collects from another sources. It is useful for ^{clear idea about} Contextual things. There may be unreliability with respect to the accuracy of the data collected.

② It is captured through the observation of a behaviour & activity over space. It is collected through → observation, structured survey & recorders. Since it is captured in

Real time, it would be very difficult & impossible to re-create, if ~~it is~~ lost hence a backup is mandatory.

⑥ Collected through active involvement ^{which determine} the Causal relationship & is typically projected to a larger popⁿ. It is ~~difficult~~ ^{expensive} in nature.

⑦ It is generated by imitation of the operation of a real-world process & system over time, using Computer based simulation models.

- eg →
- to predict weather condition,
 - economic models,
 - Chemical reactions.
 - seismic activities etc

This method is used for futuristic scenarios such as to determine what would, or could happen under certain conditions.

⑧ It involves using existing data points from different data sources in order to create new data through application of Transformation techniques, such as →

- Arithmetic formula
- Statistical methods, etc

eg → combination of area & popⁿ data create Popⁿ density is often used in Choroplething & thematic mapping. (Isoplething)

Methods of Data Collection

Primary data Collection

① Observation due to personal involvement with close reality, data is Reliable. But inaccessibility in REMOTE areas his disadvantage.

② Indirect probing @ Oral Interview
telephonic interviews ~~Indirect responses~~
authentic First hand Information because the

Interviewees can CROSS-question for the right & appropriate information.

③ Mailed Questionnaire Survey

mailing a set of questions. This method is Time-Saving & Cost effective. But the researchers can only investigate those respondents who also have access to the Internet & emails.

④ Local Service or Agency Interviewers

employs a local agency to work for him for gathering appropriate information.

Limitations → Costly, Reliability is under question as it depends upon source & agency.

⑤ Schedules It involves a face to face situation with the respondent in which the interviewer questions the respondent according to the questions mentioned in a form known as SCHEDULE. This

Secondary Data Collection

① Published Sources These include:
- National & Regional organizations
- Int'l Agencies
- official publications that collect various Statistical data.

They collect the information related to physical as well as other socioeconomic phenomena & publish them annually, monthly, daily etc.

② Unpublished Sources Some Statistical

data are not always a part of publications. Such data are stored by the institutions & private firms. The researchers may take data & use in order to make their research more meaningful & close to Ground

Reality. The disadvantage is that such reports are unreliable at times, hence needs careful usage.

is different from Questionnaire

The questionnaire is personally filled by the respondents while interviewer may or may not be physically present, whereas the schedule is filled by the researcher after asking the respondent answer to a specific question.