

DATA & ITS TYPE

DEFINITION OF DATA



- Data are distinct pieces of information, usually formatted in a special way.
- Research data is data that is collected, observed, or created, for purpose of analysis to produce original research results.

IMPORTANCE OF DATA

Data analysis is very important as it provides an explanation of various concepts, theories, frameworks and methods used. It eventually helps in arriving at conclusions and proving the hypothesis.

Data analysis helps in structuring the findings from different sources of data.

Data analysis is very helpful in breaking a macro problem into micro parts.

Data analysis acts like a filter when it comes to acquiring meaningful insights out of huge data set.

Data analysis helps in keeping human bias away from the research conclusion with the help of proper statistical treatment.

TYPES OF DATA

There are two types of data

Primary data

Secondary data

PRIMARY DATA

Primary data is original research that is obtained through first-hand investigation by means of surveys, observation and experimentation .

It is the real time data which are collected by the researcher himself.

COLLECTION OF PRIMARY DATA

Primary data is collected in the course of doing experimental or descriptive research by doing experiments, performing surveys or by observation or direct communication with respondents.

Several methods for collecting primary data are :-

1. Observation method
2. Interview method
3. Questionnaire
4. Schedules
5. Projective technique

1. OBSERVATION

- It is commonly used in studies relating to behavioral science. Under this method observation becomes a scientific tool and the method of data collection for the researcher, when it serves a formulated research purpose and is systematically planned and subjected to check and controls.
- **(a). Structured (descriptive) and unstructured (exploratory) observation. (b). Participant, non-participant and disguised observation.**
- **(c). Controlled (laboratory) and uncontrolled (exploratory) observation.**

2. INTERVIEW METHOD

This method of collecting data involves preparation of oral verbal stimuli and reply in terms of oral – verbal responses. It can be achieved by two ways :

A. Personal Interview

B. Telephonic Interview

(A). Personal interview : It require a person known as interviewer to ask questions generally in a face to face contact to the other person. It can be –

- Direct personal investigation.
- Indirect oral examination.
- Structured interviews.
- Unstructured interviews.
- Focused interviews
- Clinical interviews
- Non directive interview

(B). Telephonic interviews : It requires the interviewer to collect information by contacting respondents on telephone and asking questions or opinions orally.

3. QUESTIONNAIRE

In this method a questionnaire is sent (mailed) to the concerned respondents who are expected to read, understand and reply on their own and return the questionnaire. It consists of a number of questions printed on typed in a definite order on a form on sets of form.

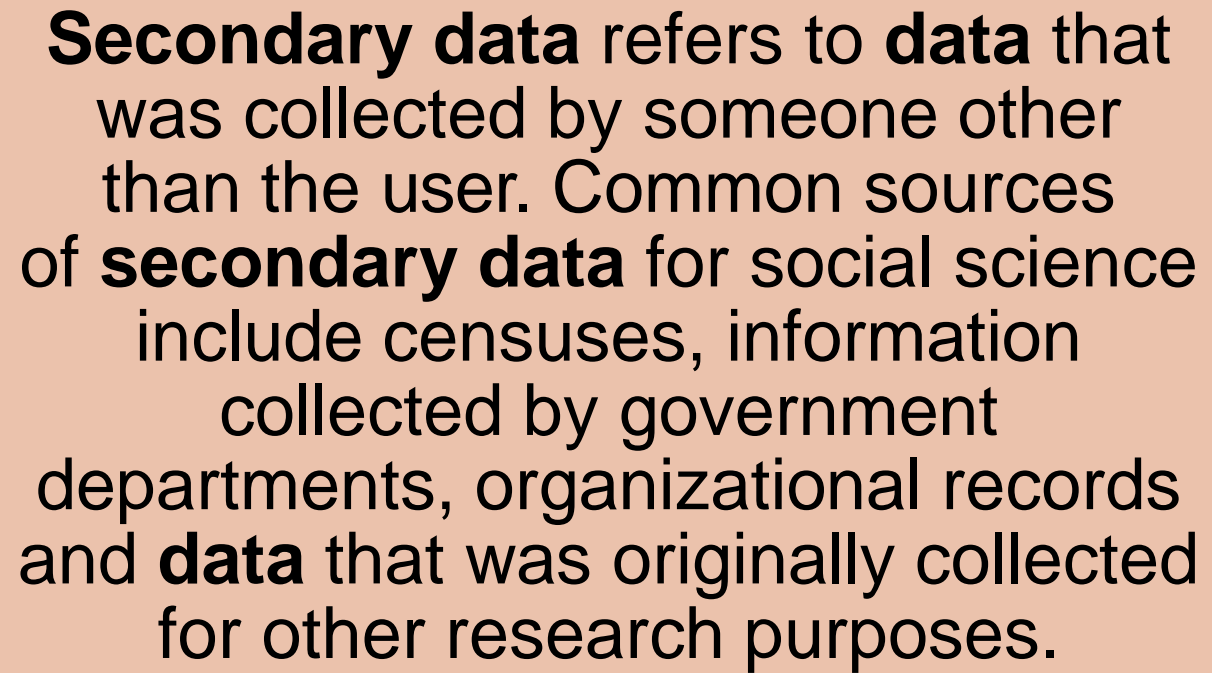
Essential of a good questionnaire :

- it should be short and simple.
- Questions should proceed in a logical sequence.
- Adequate space for answer must be provided.
- Brief directions with regard to filling up of questionnaire must be provided.
- The physical appearances – quality of paper, color etc. must be good to attract the attention of the respondent.

4. SCHEDULES

- This method of data collection is similar to questionnaire method with the difference that schedules are being filled by the enumerations specially appointed for the purpose. Enumerations explain the aims and objects of the investigation and may remove any misunderstanding and help the respondents to record answer. Enumerations should be well trained to perform their job, he/she should be honest hard working and patient. This type of data is helpful in extensive enquiries however it is very expensive.

SECONDARY DATA



Secondary data refers to **data** that was collected by someone other than the user. Common sources of **secondary data** for social science include censuses, information collected by government departments, organizational records and **data** that was originally collected for other research purposes.

COLLECTION OF SECONDARY DATA

A researcher can obtain secondary data from various sources. Secondary data may either be published data or unpublished data.

Published data are available in :

1. Publication of government.
2. Technical and trade journals.
3. Reports of various business, banks etc.
4. Public records
5. Statistical or historical documents.

Unpublished data may be found in letters, dairies, unpublished biographies or work.

Before using secondary data, it must be checked for the following characteristics :-

- 1. Reliability of data** – who collected the data ? From what source ?
Time ? Possibility of bias ? Accuracy ?
- 2. Suitability of data** – the object, scope nature of the original enquiry must be studied and then carefully scrutinize the data of suitability.
- 3. Adequacy** – the data is considered inadequate if the level of accuracy achieved in data is found inadequate or if they are related to an area which may be either narrower or wider than the area of the present enquiry.