

Data Collection

Topics:

What is data?

Needs of Data.

Types of Data.

Data collection Methods.

Data : Data is plural word means collection of information. In singular word, a piece of information is called datum. Data means observations or evidences. The scientific educational researches require the data by means of some standardized research tools or self-designed instrument. Data are both qualitative and quantitative in nature. **Data are things with which we think of.**

Data and facts are used in educational research, therefore, it is essential to understand them clearly.

Needs of Data: The data are needed in a research work to serve the following purposes:

1. Collection of data is very essential in any educational research to provide a **solid foundation** for it.
2. It is something like the **raw material** that is used in the production of data. Quality of data determines the quality of research.
3. It provides a definite direction and definite answer to a research inquiry. Whatever inquiry has to give a definite answer to an investigation. Data are very essential for a scientific research.
4. The data are needed to substantiate the various arguments in research findings.

5. The main purpose of data collection is to verify the hypotheses.
6. Statistical data are used in two basic problems of any investigation: *a) Estimation of population parameters, and b) The hypotheses testing.*
7. The qualitative data are used to find out the facts and quantitative data are employed to formulate new theory or principles.
8. Data are also employed to ascertain the effectiveness of new device for its practical utility.
9. Data are necessary to provide the solution of the problem.

Types of Data in research point:

The data can be classified into two broad categories:

1. Qualitative data or Attributes and
2. Quantitative data.

1. **Qualitative data or Attributes** : The characteristics or traits for which numerical value can not be assigned, are called attributes, e.g. motivation, confidence, honesty integrity etc.

2. **Quantitative Data or Variables**: The characteristics or traits for which numerical value can be assigned, are called quantitative data. e.g. Height, Weight, Price, etc.

Each of these are two types:

1. Primary Data &
2. Secondary Data

The *primary data* are those which are collected **afresh** and for the first time, and thus happen to be original in character.

The *secondary data*, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process. The researcher would have to decide which sort of data he would be using (thus collecting) for his study and accordingly he will have to select one or the other method of data collection. The methods of collecting primary and secondary data differ since primary data are to be originally collected, while in case of secondary data the nature of data collection work is merely that of

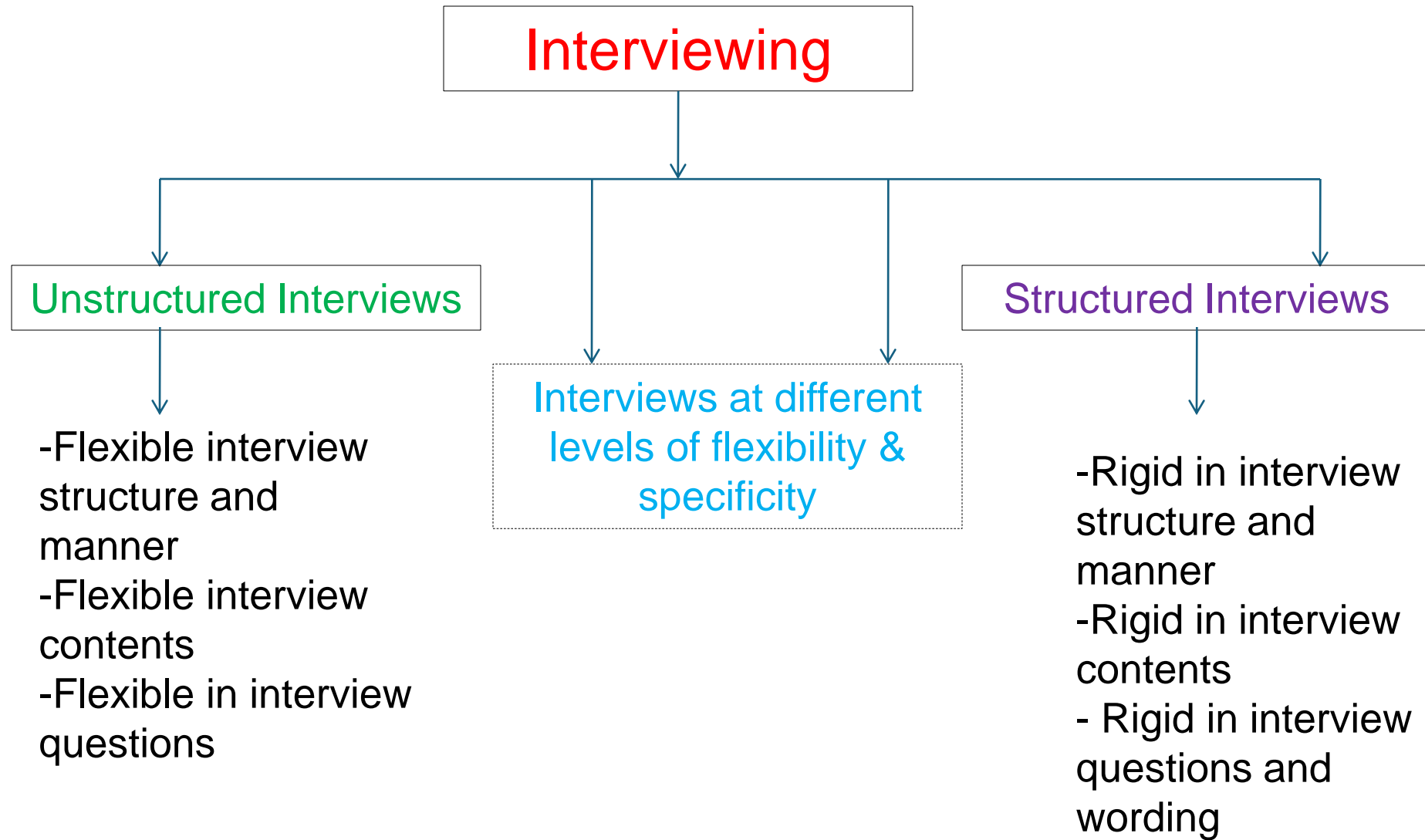
The Interview & Questionnaire

Interviewing is a commonly used method of collecting information from people. In many walks of life we collect information through different forms of interaction with others.

Simply, any person-to-person interaction, either face to face or otherwise, between two or more individuals with a specific purpose in mind is called an interview.

Types of interview:

When interviewing a respondent, you, as a researcher, have the freedom to decide **the format** and **content of questions** to be asked of your respondents, select the **wording of your questions**, decide **the way** you want to ask them and **choose the order** in which they are to be asked. This process of asking questions can be either very flexible, where you as the interviewer have the freedom to think about and formulate questions as they come to your mind around the issue being investigated, or inflexible, where you have to keep strictly to the questions decided beforehand – including their **wording**, **sequence** and the **manner in which they are asked**.



Unstructured Interviews

The strength of *unstructured interviews* is the almost complete freedom they provide *in terms of content* and *structure*. You are free to order these in whatever sequence you wish. You also have complete freedom in terms of the wording you use and the way you explain questions to your respondents. You may formulate questions and raise issues on the spur of the moment, depending upon what occurs to you in the context of the discussion.

As unstructured interviews are dominantly used in qualitative research.

Commonly used unstructured interviews are:

- In-depth Interviews
- Focus Group Interviews/Discussion (FGD)
- Narratives and (Personal experience or event, powerful for sensitive issue)
- Oral Histories (historical event or episode)

Structured Interviews

In a *structured interview* the researcher asks a **predetermined set of questions**, using the **same wording** and order of questions as specified in the interview schedule.

An **interview schedule** is a written list of questions, open ended or closed, prepared for use by an interviewer in a person-to-person interaction (this may be face to face, by telephone or by other electronic media). Note that an interview schedule is a **research tool/instrument for collecting data**, whereas **interviewing is a method of data collection**.

One of the main advantages of the structured interview is that it provides uniform information, which assures the comparability of data. Structured interviewing requires fewer interviewing skills than does unstructured interviewing.

The Questionnaire

A **questionnaire** is a written list of questions, the answers to which are recorded by respondents. In a questionnaire respondents read the questions, interpret what is expected and then write down the answers.

The only difference between an **interview schedule** and a **questionnaire** is that in interview schedule it is the interviewer who asks the questions (and if necessary, explains them) and records the respondent's replies on an interview schedule, and in the questionnaire replies are recorded by the respondents themselves.

In the case of a questionnaire, as there is no one to explain the meaning of questions to respondents, it is important that the questions are-

- ✓ Clear and easy to understand.
- ✓ Also, the layout of a questionnaire should be such that it is easy to read and pleasant to the eye, and the sequence of questions should be easy to follow.
- ✓ A questionnaire should be developed in an interactive style. This means respondents should feel as if someone is talking to them.
- ✓ In a questionnaire, a sensitive question or a question that respondents may feel hesitant about answering should be prefaced by an interactive statement explaining the relevance of the question. It is a good idea to use a different font for these statements to distinguish them from the actual questions.

Contents of the covering letter

It is essential that you write a covering letter with your mailed questionnaire. It should very briefly:

- introduce you and the institution you are representing;
- describe in two or three sentences the main objectives of the study;
- explain the relevance of the study;
- convey any general instructions;
- indicate that participation in the study is voluntary – if recipients do not want to respond to the questionnaire, they have the right not to;
- assure respondents of the anonymity of the information provided by them;
- provide a contact number in case they have any questions;
- give a return address for the questionnaire and a deadline for its return;
- thank them for their participation in the study.