RESEARCH INSTRUMENTS

These are the fact finding strategies. They are the tools for data collection. They include Questionnaire, Interview, Observation and Reading. Essentially the researcher must ensure that the instrument chosen is valid and reliable. The validity and reliability of any research project depends to a large extent on the appropriateness of the instruments. Whatever procedure one uses to collect data, it must be critically examined to check the extent to which it is likely to give you the expected results.

Questionnaire

- This is a data collection instrument mostly used in normative surveys. This is a systematically prepared form or document with a set of questions deliberately designed to elicit responses from respondents or research informants for the purpose of collecting data or information.
- It is a form of inquiry document, which contains a systematically compiled and well organised series of questions intended to elicit the information which will provide insight into the nature of the problem under study.
- It is a form that contains a set of questions on a topic or group of topics designed to be answered by the respondent.
- The respondents are the population samples of the study. The answers provided by the respondents constitute the data for the research.

Types of Questionnaires

Questionnaires may be designed as
- Structured or closed form
- Unstructured, open ended form

Structured questionnaires

They are those in which some control or guidance is given for the answer. This may be described as closed form because the questions are basically short, requiring the respondent to provide a ‘yes’ or ‘no’ response, or checking an item out of a list of given responses. Questions that require yes or no answers are also termed as Dichotomous questions. It may, also be multiple choice options from which the respondent selects the answer closer to their own opinion. The respondent's choices are limited to the set of options provided.

Unstructured questionnaire

This type which is also termed as open-ended or unrestricted type of questionnaire calls for a free response in the respondent's own words. The respondent frames and supplies the answer to the question raised in the questionnaire. It also constitute questions which give the respondent an opportunity to express his or her opinions from a set of options. Spaces are often provided for respondents to make their inputs.
Interviews
Interviews become necessary when researchers feel the need to meet face-to-face with individuals to interact and generate ideas in a discourse that borders on mutual interest. It is an interaction in which oral questions are posed by the interviewer to elicit oral response from the interviewee. Specifically with research interviews, the researcher has to identify a potential source of information, and structure the interaction in a manner that will bring out relevant information from his respondent. The creation of a cordial atmosphere is therefore vital to the success of such an interaction. Apart from face-to-face interviews, they can also be conducted over the phone or the computer terminal via video conferencing technology.

Interviews range from formal to less formal and to completely informal interviews. There are four main kinds of interview: (a) the structured interview; (b) the unstructured interview; (c) the non-directive interview; and (d) the focus interview.

Structured Interviews
The Structured Interviews are formal because, sets of questions known as interview questionnaire are posed to each interviewee visited and the responses are recorded on a standardized schedule. It is therefore characterised as being a closed interview situation. In structured interview, the interviewer follows a set pattern usually adhering as much as possible to the order of questions on the interview questionnaire whilst posing the questions in a formal manner. Interviewers must always ensure that the atmosphere of an interview is congenial to establish interviewer-interviewee rapport.

Unstructured Interview
The Unstructured Interview is the less formal type in which although sets of questions may be used, the interviewer freely modifies the sequence of questions, changes the wording and sometimes explains them or adds to them during the interaction. Hence the researcher has to be careful in order not to deviate from his focus. The atmosphere is often casual. This is conducted in what is characterised as an opened situation because there is more flexibility and freedom in the interaction.

Non-Directive Interview
The Non-Directive Interview or the unguided gives excessive freedom for the respondent to express his or her ideas subjectively and spontaneously as she chooses or is able to. There are no set questions in this style. It is the most appropriate type of interview to use when investigating issues where the respondent has to be allowed to talk uninterrupted on a very broad topic which will unconsciously reveal personal motives, feelings, attitudes etc.

Focus Interview
Focus Interview as the name suggests, focuses on the respondent’s subjective responses and experience on the subject matter to elicit more information. This method is used by researchers to render the non-directive interview more interviewer control with the use of verbal cues that serve as a stimulus to inspire respondents to volunteer more information on the subject. As the story unfolds the researcher can hum in approval of what the respondent
submits or chip in a stimulating question to encourage the flow of the conversation.

**Transcribing**

Data recorded from verbal interaction with respondents have to be transcribed i.e. convert the speech sound into words as accurately as possible.

**Observation**

The study of photographs, videotapes, tape recordings, art objects, computer software and films fall within this type of data collection procedure. The procedure should be unobtrusive to enable informants to share their reality directly with researchers. It is creative and captures attention visually. The presence of a photographer or the video technician may be intrusive and influence responses.

Observation is one of the very important methods for obtaining comprehensive data in qualitative research especially when a composite of both oral and visual data become vital to the research. A researcher obviously needs an audio-visual recorder for a complete collection of such comprehensive record. By the use of observation strategy, researchers are able to obtain first hand information about objects, and eventful happenings like durbar and festivals. The possibility of distorting facts and records are reduced to the barest minimum.

Fine artists, industrial artists and graphic designers employ **sketching** as they observe nature to collect data in design-based research.

With this instrument, the researcher may become a

1. **Participant observer**
2. **Non-participant observer**.

**Participant Observer:**

In this type of observation the researcher lives as a member of the subjects of the study while observing and keeping notes of the attributes of the subject that is being researched so that he can directly experience, the phenomenon being studied. Even though he is seen by the subjects of the study, he conceals his real identity as a researcher. By this approach the researcher gets firsthand experience with informants. This is the type of observation which deals with covert investigation for which information may be sensitive and informants may feel uncomfortable to disclose.

**Non-Participant Observer:**

In this approach the researcher does not live as a member of the subjects of the study. The researcher watches the subjects of his or her study, with their knowledge of his status as a researcher, but without taking an active part in the situation under study. This approach is sometimes criticized on the grounds that the very fact of their being observed may lead people to behave indifferently, thus invalidating the data obtained.

**Reading of Documents**

Although reading is more to do with literature review, it is also an instrument for studying
public documents such as newspapers, minutes of meetings and private documents such as letters, biographies and diaries to enable the researcher obtain the language and words of informants who may not be alive at the time of the research. The limitation or difficulty in this approach is that the documents may be protected and researchers may not have access to them either because they are national security documents or confidential documents. Letters and diaries can also be studied at both the researcher and the informant's convenience.