

TECHNIQUES OF RESEARCH: OBSERVATION, INTERVIEW AND PROJECTIVE TECHNIQUES

While conducting research, it should be ensure that the proper techniques and tools of research should be used. With the help of proper tools, the research can be conducted properly. If improper research techniques are used, then the results and inferences may not be correct because research techniques affect the research itself.

Appropriate research technique lead to gathering useful data, the analysis of data can provide quite useful insights. Using a proper technique will not only affect the research but also affect the entire processes including data collection and data analysis. In some cases techniques may be used in order to reduce mistakes as well as inconsistencies in the research.

Following is a review of research techniques which are widely used by many researchers all over the world.

Observation

Observation method is a technique in which the behaviour of research subjects is watched and recorded without any direct contact. It involves the systematic recording of observable phenomena or behaviour in a natural setting.

Observation offers the researcher a distinct way of collecting data. It does not rely on what people say they do, or what they say they think. It is more direct than that. Instead, it draws on the direct evidence of the eye to witness events first hand. It is a more natural way of gathering data. Whenever direct observation is possible it is the preferable method to use.

Purpose

The purpose of observation techniques are

- To collect data directly
- To collect substantial amount of data in short time span
- To get eye witness first hand data in real like situation
- To collect data in a natural setting

Characteristics

It is necessary to make a distinction between observation as a scientific tool and the casual observation of the man in the street. An observation with the following characteristics will be scientific observation.

- Observation is systematic.
- It is specific.
- It is objective.
- It is quantitative.
- The record of observation should be made immediately.
- Expert observer should observe the situation.
- It's result can be checked and verified.

Types of Observation

On the basis of the purpose of observation may be of varied type like

- Structured and Unstructured
- Participant and Non-participant

Structured and Unstructured Observation

In the early large stage of an investigation, it is necessary to allow maximum flexibility in observation to obtain a true picture of the phenomenon as a whole. In the early stage, it we attempt to restrict the observation to certain areas, and then there will be the risk of overlooking some of the more crucial aspects. As the investigator studies the significant aspects and observes some restricted aspects of the situation to derive more and rigorous generalizations. So in the first stage of observation, the observation is wide and unstructured and as the investigation proceeds observation gets restricted and structured.

Participant and Non-Participant Observation

In participant observation, the observer becomes more or less one of the groups under observation and shares the situation as a visiting stranger, an attentive listener, an eager learner or as a complete participant observer, registering, recording and interpreting behaviour of the group.

In non-participant observation, the observer observes through one way screens and hidden microphones. The observer remains a look from group. She/he keeps his/her observation as inconspicuous as possible. The purpose of non-participant observation is to observe the behaviour in a natural setting. The subject will not shift his behaviour or they will not be conscious hat someone is observing his behaviour.

The advantages and disadvantages of participant and nonparticipant observation depend largely on the situation. Participant observation is helpful to study about criminals at least participating with person sometime. It gives a better insight into the life. Therefore it has a built in validity test. It's disadvantages are that it is time consuming As She/he develops relationship with the members, there is a chance of losing his/her neutrality, objectivity and accuracy to rate things as they are: Non-participant observation is used with groups like infants, children or abnormal persons. It permits the use of recording instruments and the gathering of large quantities of data.

Therefore, some researchers feel that it is best for the observer to remain only a partial participant and to maintain his status of scientific observer apart from the group.

Steps of Effective Observation

As a research technique effective observation needs effective

a. Planning

While planning to employ observation as a research technique the following factors should be taken into consideration.

- Sample to be observed should be adequate.

- Units of behaviour to be observed should be clearly defined.
- Methods of recording should be simplified.
- Detail instruction should be given to observe if more than one observes is employed to maintain consistency.
- Too many variables should not be observed simultaneously.
- Excessively long period of observation without rest period should be avoided.
- Observers should be fully trained and well equipped.
- Records of observation must be comprehensive.

b. Execution

A good observation plan leads to success only when followed with skill and expert execution. Expert execution needs:-

- Proper arrangement of special conditions for the subject.
- Assuming the proper physical position for observing.
- Focusing attention on the specific activities or units of behaviour under observation.
- Observing discreetly the length and number of periods and intervals decided upon.
- Handling well the recording instruments to be used.
- Utilizing the training received in terms of expertness.

c. Recording

The two common procedures for recording observations are

- Simultaneous
- Soon after the observation

The simultaneous form of recording may distract the subjects while after observation the observer may distract the subjects while after observation the observer may fail to record the complete and exact information. Therefore for a systematic collection of data the various devices of recording should be used. They are like-checklist; rating scale and score card etc.

d. Interpretation

Interpretation can be done directly by the observer at the time of his observation. The observer merely records his observations and leaves the matter of interpretation to an expert that is more likely to provide a unified frame of reference. It must of course, be recognized that the interpreter's frame of reference is fundamental to any interpretation and it might be advisable to insist on agreement between interpreters of different background.

Advantages of Observation

- Data collected directly
- Systematic and rigorous
- Substantial amount of data can be collected in a relatively short time span
- Provides pre-coded data and ready for analysis
- Inter observer reliability is high.

Limitations of Observation

- Establishing validity is difficult.
- Subjectivity is also there.
- It is costly both in terms of time and money.
- The data may be unmanageable.
- There is possibility of biasness.

However, observation is a scientific technique to the extent that it serves a formulated research purpose, planned systematically rather than occurring haphazardly, systematically recorded and related to more general propositions and subjected to checks and controls with respect to validity, reliability and precision.

Interview

Interviews are something more than conversation. They involve a set of assumptions and understandings about the situation which are not normally associated with a casual conversation. Interviews are also referred as an oral questionnaire by some people, but it is indeed much more than that. Questionnaire involves indirect data collection, whereas Interview data is collected directly from others in face to face contact. As you know, people are hesitant to write something than to talk. With friendly relationship and rapport, the interviewer can obtain certain types of confidential information which might be reluctant to put in writing.

Therefore research interview should be systematically arranged. It does not happen by chance. The interviews are not done by secret recording of discussions as research data. The consent of the subject is taken for the purpose of interview. The words of the interviews can be treated as “on the record and for the record”. It should not be used for other purposes besides the research purpose. The discussion therefore is not arbitrary or at the whim of one of the parties. The agenda for the discussion is set by the researcher. It is dedicated to investigating a given topic.

Importance of Interview

Whether it is large scale research or small scale research, the nature of the data collection depends on the amount of resources available. Interview is particularly appropriate when the researcher wishes to collect data based on:

- Emotions, experiences and feelings.
- It is appropriate when dealing with young children, illiterates, language difficulty and limited, intelligence.
- It supplies the detail and depth needed to ensure that the questionnaire asks valid questions while preparing questionnaire.
- It is a follow up to a questionnaire and complements the questionnaire.
- It can be combined with other tools in order to corroborate facts using a different approach.
- It is one of the normative survey methods, but it is also applied in historical, experimental, case studies.

Types of Interview

Interviews vary in purpose, nature and scope. They may be conducted for guidance, therapeutic or research purposes. They may be confined to one individual or extended to several people. The following discussions describe several types of interview.

Structured Interview

Structured interview involves tight control over the format of questions and answers. It is like a questionnaire which is administered face to face with a respondent. The researcher has a predetermined list of questions. Each respondent is faced with identical questions. The choice of alternative answers is restricted to a predetermined list. This type of interview is rigidly standardized and formal.

Structured interviews are often associated with social surveys where researchers are trying to collect large volumes of data from a wide range of respondents.

Semi-Structured Interview

In semi-structured interview, the interviewer also has a clear list of issues to be addressed and questions to be answered. There is some flexibility in the order of the topics. In this type of interviewee is given chance to develop his ideas and speak more widely on the issues raised by the researcher. The answers are open-ended and more emphasis is on the interviewee elaborating points of interest.

Unstructured Interview

In case of unstructured interview, emphasis is placed on the interviewee's thoughts. The role of the researcher is to be as unobtrusive as possible. The researcher introduces a theme or topic and then letting the interviewee develop his or her ideas and pursue his or her train of thought. Allowing interviewees to speak their minds is a better way of discovering things about complex issues. It gives opportunity for in depth investigations.

Single Interview

This is a common form of semi structured or un-structured interview. It involves a meeting between one researcher and one informant. It is easy to arrange this type of interview. It helps the researcher to locate specific ideas with specific people. It is also easy to control the situation in the part of the interviewer.

Group Interview

In case of group interview, more than one informant is involved. The numbers involved normally about four to six people. Here you may think that it is difficult to get people together to discuss matters on one occasion and how many voices can contribute to the discussion during any one interview. But the crucial thing is to bear in mind. Here is that a group interview is not an opportunity for the researcher to questions to a sequence of individuals, taking turns around a table. "Group" is crucial here, because it tells us that those present in the interview will interact with one another and that the discussion will operate at the level of the group. They can present a wide range of information and varied view points.

According to Lewis -Group interviews have several advantages over individual interviews. In particular, they help to reveal consensus views, may generate richer responses by allowing participants to challenge one another's views, may be used to verify research ideas of data gained through other methods and may enhance the reliability of responses.

The disadvantage of this type of interview is that the view of quieter people does not come out. Certain members may dominate the talk. The most disadvantages are that whatever opinions are expressed is acceptable by the group irrespective of their opinions contrary to it. Private opinion does not given importance.

Focus Group Interview

This is an extremely popular form of interview technique. It consists of a small group of people, usually between six and nine in number. This is useful for non-sensitive and non-sensitive and noncontroversial topics. The session usually revolve around a prompt, a trigger, some stimulus introduced by the interviewer in order to 'focus' the discussion. The respondents are permitted to express themselves completely, but the interviewer directs the live of thought. In this case, importance is given on collective views rather than the aggregate view. It concentrates on particular event or experience rather than on a general line of equality.

Requirements of a Good Interview

As a tool of research good interview requires:

- Proper preparation.
- Skillful execution.
- Adequate recording and interpretation.

Preparation for Interview

The follow actors need to be determined in advance of the actual interview

- Purpose and information needed should be clear.
- Which type of interview best suited for the purpose should be decided.
- A clear outline and framework should be systematically prepared.
- Planning should be done for recording responses.

Execution of the Interview

- Rapport should be established.
- Described information should be collected with a stimulating and encouraging discussion.
- Recording device should lease without distracting the interviewee.

Recording and Interpreting Responses

- It is best to record through tape recorder.
- If the responses is to be noted down, it should be either noted simultaneously or immediately after it.
- Instead of recording responses, sometimes the researcher noted the evaluation directly interpreting the responses.

Advantages of Interview

Interview technique has the following advantages:

a. Depth Information

Interviews are particularly good at producing data which deal with topics in depth and in detail. Subjects can be probed; issues pursued lines of investigation followed over a relatively lengthy period.

b. Insights

The researcher is likely to gain valuable insights based on the depth of the information gathered and the wisdom of “key informants”

c. Equipment

Interviews require only simple equipment and build on conversation skills which researchers already have.

d. Information Priorities

Interviews are a good method for producing data based on informant’s priorities, opinions and ideas. Informants have the opportunity to expand their ideas, explain their views and identify what regard as their crucial factors.

e. Flexibility

Interviews are more flexible as a method of data collection. During adjustments to the line of enquiry can be made.

f. Validity

Direct contact at the point of the interview means that data can be checked for accuracy and relevance as they are collected.

g. High response rate

Interviews are generally pre-arranged and scheduled for a convenient time and location. This ensures a relatively high response rate.

h. Therapeutic

Interviews can be a rewarding experience for the informant, compared with questionnaires, observation and experiments, there is a more personal element to the method and people end to enjoy the rather rare chance to talk about their ideas at length to a person whose purpose is to listen and note the ideas without being critical.

Disadvantages of Interviews

Irrespective of the above advantages, it has the following disadvantages.

a. Time Consuming

Analysis of data can be difficult and time consuming. Data preparation and analysis is “end loaded” compared with, for instance, questionnaires, which are preceded and where data are ready for analysis once they have collected. The transcribing and coding of interview data is a major task for the researcher which occurs after the data have been collected.

b. Difficulty in data analysis

This method produces non-standard responses. Semistructured and unstructured interviews produce data that are not pre coded and have a relatively open format.

c. Less Reliability

Consistency and objectivity are hard to achieve. The data collected are, to an extent, unique owing to the specific content and the specific individuals involved. This has an adverse effect on reliability.

d. Interviewer Effect

The identity of the researcher may affect the statements of the interviewee. They may say what they do or what they prefer to do. The two may not tally.

e. Inhibitions

The tape recorder or video recorder may inhibit the important. The interview is an artificial situation where people are speaking for the record and on the record and this can be daunting for certain kinds of people.

f. Invasion of Privacy

Interviewing can be an invasion of Privacy and may be upsetting for the informant.

g. Resources

The cost of interviewer's time, of travel and of transcription can be relatively high if the informants are geographically widespread.

On the basis of the merits and limitations of the interview techniques it is used in many ways for research and non-research purposes. This technique was used in common wealth teacher training study to know the traits must essentials for success in teaching. Apart from being an independent data collection tool, it may play an important role in the preparation of questionnaires and check lists which are to be put to extensive use.

Projective Techniques

Projective techniques are measures in which an individual is asked to respond to an ambiguous or unstructured stimulus. They are called projective because a person is expected to project into the stimulus his or her own needs, wants, fears, beliefs, anxieties, and experiences. On the basis of the subject's interpretation of the stimuli and his or her responses, the examiner attempts to construct a comprehensive picture of the individual's personality structure. Projective methods are used mainly by clinical psychologists for studying and diagnosing people with emotional problems. They are not frequently used in educational research because of the necessity of specialized

training for administration and scoring and the expense involved in individual administration. Furthermore, many researchers question their validity primarily because of the complex scoring.

The two best known projective techniques are-

- a. The Rorschach Inkblot Technique
- b. The Thematic Apperception Test (TAT)

The Rorschach Inkblot Technique

The Rorschach consists of 10 cards or plates each with either a black/white or a colored inkblot. Individuals are asked what they “see.” Their responses are scored according to whether they used the whole or only a part of the inkblot or if form or color was used in structuring the response, whether movement is suggested, and other aspects.

The Thematic Apperception Test (TAT)

In the TAT, the respondent is shown a series of pictures varying in the extent of structure and ambiguity and asked to make up a story about each one. The stories are scored for recurrent themes, expression of needs, perceived problems, and so on. The TAT is designed for individuals’ age 10 years through adult. There is also a form available for younger children (Children’s Apperception Test) and one for senior citizens (Senior Apperception Test).

Suggested Reading

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