

OBSERVATION

Observation is the process in which one or more persons observe what is occurring in some real-life situation, and they classify and record pertinent happenings according to some planned scheme. It is used to evaluate the overt behaviour of individuals in controlled and uncontrolled situations.

Planning for observation. According to Good (1966, p. 244-245) planning for observation includes the following factors:

1. An appropriate group of subjects to observe.
2. Selection and arrangement of any special condition for the group.
3. Length of each observation period, interval between periods, and number of periods.
4. Physical position of the observer and possible effect on the subject or subjects.
5. Definition of specific activities or units of behaviour to be observed.
6. Entry of frequencies or tallies in the record, as a total for the entire observation period or by sub-division of time within the observation period.
7. Scope of observation, whether for an individual child or for a group.
8. Form of recording, including consideration of mechanical techniques and such quantitative factors as number, time, distance and spatial relationships.
9. Training of the observer in terms of expertness.
10. Interpreting of observations.

Execution of observation. An expert execution of observation includes:

1. Proper arrangement of specific conditions for the subject or subjects to be observed.
2. Assuming the proper role or physical positions for observing.
3. Focusing attention on the specific activities, or units of behaviour under observation.
4. Handling well the recording instruments to be used.
5. Utilizing the training and experience fairly well in terms of making the observation and recording the facts.

Kinds of observation. Observation may be either participant or non-participant.

Participant or non-participant observation. In the participant observation, the observer becomes more or less one of the group under observation. In such situations, the observer will be in sight of the person being observed and may actually take part in some activity with the observed individual or group. In non-participant observation, observer takes a position where his presence is not disturbing the group. He may follow in the detail the behaviour of one individual or may describe one or two behaviour characteristics of a dozen or more individuals.

Structured or unstructured observation. Observation may also be classified as unstructured and structured. Unstructured observation is mainly associated with participant observation and it is often an exploratory technique. The structured observations are much too formal and they are designed to provide systematic description to test casual hypotheses. Structured observations are executed in controlled situations like classroom or laboratory settings. In the unstructured observations, it may not be possible to categorize behaviour in advance of observation. Instead of using pre-determined categories, the observer considers aspects of behaviour in terms of their context or in situations of which they are part.

Recording and interpreting the observation.

The recording of the observation data may either be simultaneous or soon after the observation. In the former case, the observer goes on recording his observation data simultaneously with the occurrence of the phenomena observed. In the latter case, the observer undertakes to record his observations not simultaneously with his actual observation process, but immediately after he has observed for a unit of time while the details are still fresh in his mind.

In viewing, classifying and recording behavior, the observer must take utmost care to minimize the influence of his biases, attitudes and values on the observation report by using various mechanical instruments such as cameras, tape-recorders, stop-watches etc.

Observation is done either directly, as when the observer plays a passive role and observes without intervening in any way; or in an interview, where the observer plays a more active role,

by asking a series of questions or administering a test, and where he observes the behaviour of the interviewee as well as recording his responses.

In addition to rating scales and checklists, the direct observation makes use of anecdotes, time sampling method, incident-sampling method and controlled diary method.

1. **Anecdotes.** It is a word description of a behaviour episode. Anecdote description have served as useful tool in behavioural research. Such description have been extensively used in examining classroom practices; in analyzing community influences on development; in assessing change in interpersonal behaviour of hyper-aggressive children undergoing residential treatment.
2. **The time sampling method.** By time sampling method behaviour can be studied for a number of short periods of time which are systematically spaced over the total period of study. For example, a child's behaviour may be studied for the whole school day by means of a series of observations, each of 10 minutes duration.
3. **The incident sampling method.** The incident sampling method concerns the observation of the behaviour of an individual in selected incidents or situations in which he becomes involved.
4. **The controlled diary method.** In this method, the observer keeps a diary in which he records certain aspects of the behaviour of a subject. The information gathered by controlled method is supplemented by the observation data gathered by other means.

Advantages.

1. It is a simple method.
2. It is less costly. It does not need any laboratory.
3. everything is seen on the spot. There is no scope of forgetting.

Disadvantages.

1. A subject may intentionally attempt to exhibit an artificial behaviour when he knows that he is being observed.
2. Observation method is time consuming.

QUESTIONNAIRE

A questionnaire is a device consisting of a series of questions dealing with some psychological, social, educational etc topics sent or given to an individual or a group of individuals, with the object of obtaining data with regard to some problems under investigation. Goode and Halt (1952, pp.33) state that in general the word 'questionnaire' refers to a device for securing answers to a series of questions by using a form which the respondent fills in himself.

Questionnaire is a popular means of collecting all kinds of data in research. It is widely used in educational research to obtain information about certain conditions and practices, and to inquire into opinions and attitudes of an individual or a group.

Classification of questionnaire. The questionnaire can be classified in terms of the nature of questions which are used. Questions may be asked in a closed or an open form. The researcher may use one type exclusively or both in combination. Questionnaire that call for short or check responses are known as closed form or restricted type. The respondent is invariably permitted to reply only with 'yes' or 'no' or 'no-opinion', or is requested to select an answer from a short list of possible responses. He is asked to place a tick (✓) mark a space provided or to underline a response. Sometimes he is asked to insert a brief answers of his own.

The open-form or unrestricted type of questionnaire calls for a free response in the respondent's own words. The form of the question is unstructured and no clues are provided to the respondent. It provides greater depth of response. However the responses to such type of questions are sometimes difficult to tabulate, organize and interpret.

Construction of questionnaire (principles)

Following are some hints which a researcher may consider useful while constructing, administering and analyzing a questionnaire.

- 1. Purpose of the questionnaire.** A good questionnaire must serve two major purposes. First, it must translate the objectives of an investigation into specific questions, the answers to which will provide the data necessary to test the hypothesis and explore the area defined by the objectives. Secondly, the questionnaire must motivate the respondents to communicate the required information.
- 2. Language.** It should offer maximum opportunity for complete and accurate communication of ideas between the researcher and the respondent. According to the Best and Kahn following are the principles of making the questions more precise:
 - a. It should define or qualify terms that could easily be misinterpreted.
 - b. Be careful in using descriptive objectives and adverbs that have no agreed upon meaning.
 - c. Beware of double negative.
 - d. Be careful of inadequate alternatives.
 - e. Avoid the double barreled questions.
 - f. Underline a word if you wish to indicate special emphasis.
 - g. When asking for rating or comparison, a point of reference is necessary.
 - h. Avoid unwarranted assumptions.
 - i. Phrase questions so that they are appropriate for all respondents.
 - j. Design questions that will give a complete response.
 - k. Provide for the systematic qualification of responses.
 - l. Consider the possibility of classifying the responses yourself, rather than having the respondent choose category.
- 3. Information level of the respondents.** The information elicited by the questionnaire must lie within the respondent's present level of information.
- 4. Social acceptance of responses.** The questions must provide the respondent a range of responses which meet his criteria of social acceptability.
- 5. Leading questions.** The questions should be objective with no leading suggestions as to the most appropriate responses.
- 6. Sequence of questions.** The sequence of questions must facilitate the easy progress of the respondent from item to item and it should lead the respondent from item and it should lead the respondent to anticipate the next question.
- 7. The form or type of questions.** The researcher must decide which type of questionnaire is more likely to supply the information required.
- 8. Length of the questionnaire.** It should not be too long. It is necessary to include a large number of questions; it is advisable to have two separate questionnaires.
- 9. Expert's opinion.** Expert's opinion is necessary for planning and constructing questionnaire.
- 10. Preliminary try-out of the questionnaire.** Researcher need to try questionnaires with a few representative samples. Sometimes the tryout calls for major revision. It is also to see whether the questionnaire promote a congenial and appropriate relationship with respondents and whether respondents understand the questions.
- 11. Validation of questionnaire.** The validation of a questionnaire utilizes the same principles and procedures as the validation of any tool of measurement.
- 12. Reliability.** The test-retest method is the feasible approach to the working out of the reliability of questionnaires.
- 13. Administration of questionnaire.** The questionnaire can call for write or oral responses. Some questionnaires are designed with the intention that they should be answered in writing, others are designed in a way which require an oral response.
- 14. Analyzing and interpreting questionnaire responses.** Quantification of data obtained by the questionnaire is generally achieved through tabulation and counting. The totals are converted into proportions or percentages. Calculation of contingency coefficients or correlation is often made in order to suggest probability of relationship among data. Computation of chi-square statistics is also advisable.

Advantages.

1. It permits wide coverage. We can send questionnaire by post to any part of the world.
2. It requires minimum expenditure of money and effort.
3. Since the number of respondents is large, it makes for greater validity.
4. Once questionnaire is framed, we can ask anybody to administer it.
5. It is presented to the subject in a written form. Its standardized instructions for giving answer ensure some uniformity.
6. It does not place any pressure on the subject for immediate response.
7. It permits group administration.
8. If the respondent is assured that his replies will be regarded as confidential, he can give true information.

Limitations.

1. It cannot be used with illiterates and children.
2. If the respondent mis-interprets a question or gives incomplete response, nothing can be done.
3. All the respondents do not return questionnaire. This badly affects our result.
4. Since a questionnaire has more or less a rigid structure, it is not very helpful in finding information about complex emotional subjects.
5. The questionnaire does not generally motivate the respondents to fill in the answers.
6. The important signs of behaviour like gestures, reactions, emphasis, assertions and motions of the respondent remain unnoticed in questionnaire.

INTERVIEW

The interview is a process of communication or Interaction in which the subject or interviewee gives the needed information verbally in a face-to-face situation. Although the interview is generally associated with counseling or psychotherapy, it can be used effectively to collect useful information about individuals in many research situations.

Interviews vary in design or structure. In some situations, an interviewer may interview one individual at one time. It is called an 'individual interview'. In a 'group interview', a group of individuals are interviewed by an interviewer. The size of the group should neither be too small nor too large. In the group interview, the interviewees may hesitate to reveal certain facts or experiences in the presence of others.

Interviews are also classified as 'structured' and 'unstructured'. A structured interview is one in which the procedure to be followed is standardized and is determined in advance of the interview. Structured interviews impose a degree of formality which does not permit the interviewer to establish the kind of relationship between himself and the interviewee which is necessary if the interview is to be conducted at some depth.

Unstructured interviews provide greater flexibility. Although the series of questions to be asked and the procedure to be followed are decided upon before hand, the interviewer is largely free to arrange the form and timing of the questions.

Techniques of interviewing. There are some techniques that need to be considered while interviewing. These techniques deal with preparation for the interview, conduct of the interview and recording of the data.

1. **Preparation for the interview.** The interviewer must decide exactly what kind of data the interview should yield. Whether the structured or unstructured procedures will be more useful, and how the results of the interview should be recorded. It is advisable to try out the interview on another person before using it for actual investigation.
2. **Conducting the interview.** In the execution of an interview, a harmonious relationship between the interviewer and the interviewee is most essential. To elicit adequate responses from the interviewee, Turney and Rohb (1971, pp. 134 – 135) have suggested certain rules that should be followed during the conduct of interview to facilitate data collecting:

- a. Ask only one question at a time.
 - b. Repeat a question if necessary.
 - c. Try to make sure that the subject understand the question.
 - d. Listen carefully to the subject's answers.
 - e. Observe the subject's facial expressions, gestures, and tone of voice.
 - f. Allow the subject sufficient time to answer the question, but do not let the interview drag.
 - g. Avoid suggesting answers to the question.
 - h. Do not show signs of surprise, shock, anger, or other emotions if expected answers are given.
 - i. Maintain a neutral attitude with respect to controversial issues during interview.
 - j. Take note of answers that seem to be vague, ambiguous or evasive.
 - k. In the unstructured interview, ask additional questions to follow up clues or to obtain additional information.
 - l. Use tact and skill in getting the subject back to an area of inquiry when he has strayed too far from the original question.
- 3. Recording of the interview.** The interviewer may make use of a schedule, a structured formal, rating scale or a tape recorder to record the responses of interviewee. The use of tape-recorder during the conduct of interview not only eliminated the omissions, distortions, elaboration and other modification of data usually found in written interviews, but it also provides an objective basis for evaluating the adequacy of the interview data in relation to the performance of the interviewer.

Reliability and validity.

According to Good (1966, p. 237) the reliability of the data obtained through the interview is affected by the following factors:

1. The desire of many interviewees to make good impressions.
2. The reluctance of many subjects to reveal highly personal information.
3. An attitude of confidence in and respect for the interviewer, on the part of the interviewee.
4. Content and form of questions, procedures established for the interview, physical setting, mode of recording, accidental distractions and temporary state of the parties involved in the interview.

For the validity of the interview, it is advisable to compare the interviewee's responses with other sources of data.

Advantages and limitations.

The interview has certain advantages. It provides an opportunity to the interviewer to question thoroughly certain areas of inquiry. The interview permits greater depth of response which is not possible through any other means. It also enables an interviewer to get information concerning feelings, attitudes or emotions in relation to certain questions.

The interview, however, has certain limitations. It is a time consuming technique. The effectiveness of the interview depends greatly upon the skill of the interviewer not ordinarily possessed by inexperienced researchers. There is a constant danger of subjectivity on the part of the interviewer. Moreover, even in the presence of a skilled interviewer, some interviewees will not respond freely, frankly and accurately.

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